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*The General Plan
for
Sacramento, Calif.*

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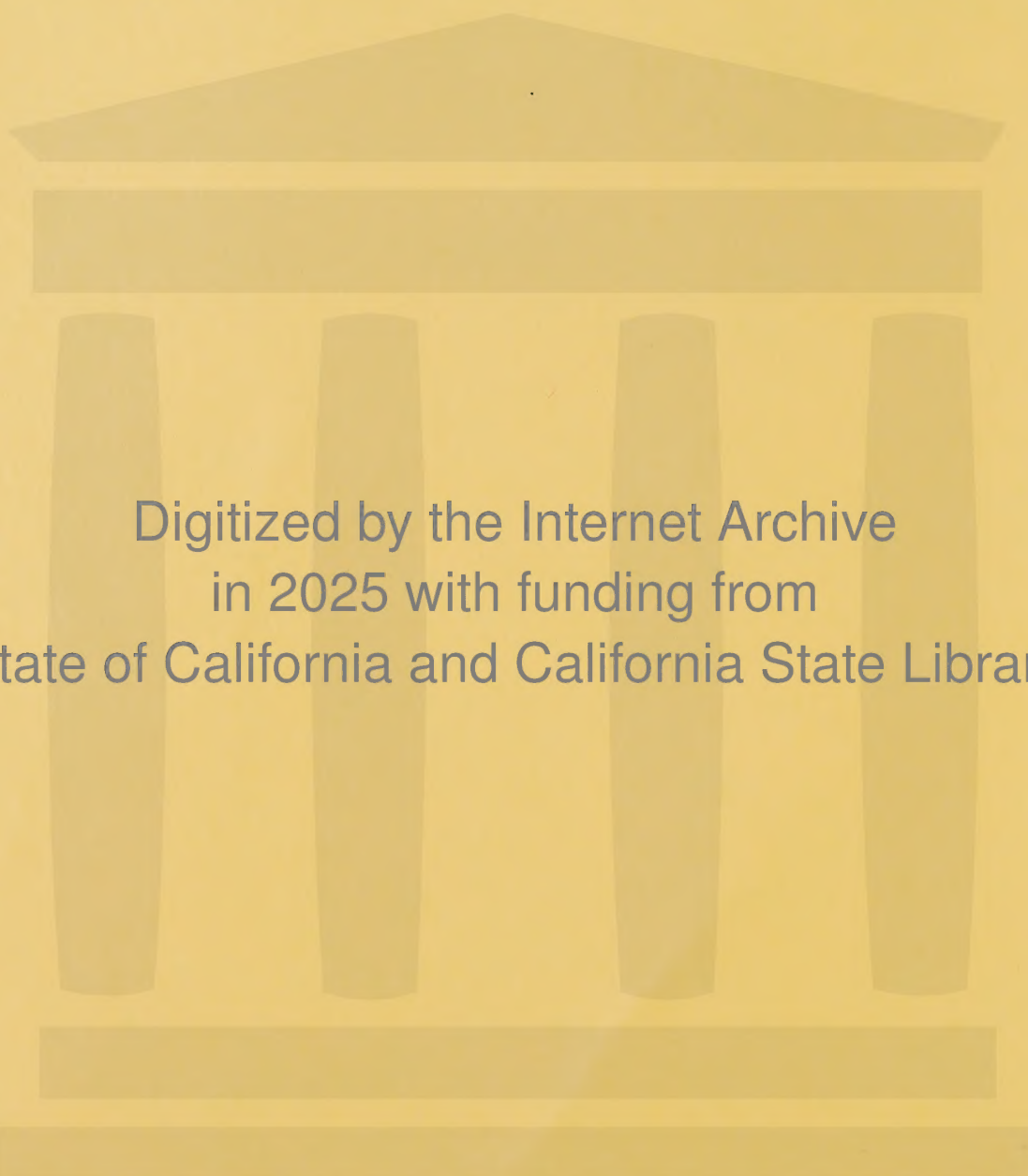
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THE
GENERAL
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The Sacramento General Plan

- Introduction
- Scope
- Goals
- Policy Framework
- Land Use
- Transportation
- Water Resources
- Public Utilities
- General Policies
- Plan Summary

THE
GENERAL PLAN

FOR
SACRAMENTO, CALIFORNIA

The General Plan Elements

- Water Supply
- Wastewater
- Electricity
- Gas
- Telecommunications
- Land Use
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The Policy Framework and General Policies

- Land Use and Planning
- Transportation
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The Planning Element

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THE SACRAMENTO GENERAL PLAN

SECTION ONE

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

THE PARLIAMENTARY SYSTEM

CHAPTER I

August 12, 1977

August 12, 1977

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THE 1974 SACRAMENTO GENERAL PLAN

BACKGROUND

Planning operates at many levels, and in different degrees of scope and time duration. It can be particularly meaningful for a city when it fits into a total, comprehensive framework. This framework for Sacramento is the General Plan as it is officially called in the City Code.

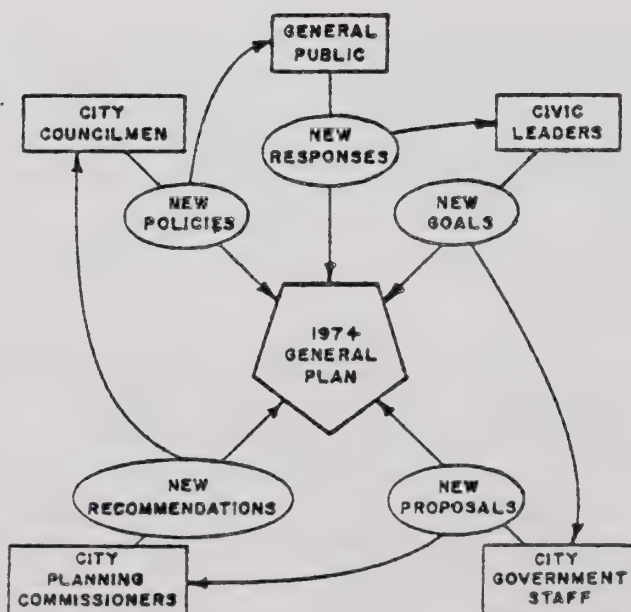
A General Plan is essentially a series of policy statements recommended by the City Planning Commission and adopted by the City Council. These policies are directed toward facilitating the rebuilding of transitional areas and promoting orderly physical growth. The Plan document is therefore intended as an active reference tool, one for consideration in reaching decisions in all aspects of the community's physical improvement. While the Plan is initiated and adopted within an official context, its value as a commitment to future action should be of equal significance to all Sacramentans who live and work in Sacramento.

Long before California gave planning powers to local jurisdictions, Sacramento was actively engaged in planning projects. At the time of its founding in 1849, General John A. Sutter, Jr., laid out the original plat map for Sacramento. During the early 1900's, several other plans were prepared by such well known names as Hegemann, Nolen, and Bartholomew. All of these plans, however, were fragmented in approach compared with general plans today.

By 1924 the first City Planning Commission was established as an advisory agency appointed by the City Council. The forerunner of our present day general plans was undertaken four years later by the consulting firm of Harlan Bartholomew and Associates. Land use, transportation and zoning plans resulting from this study provided the first implementing tools for use in making decisions regarding urban development.

The first comprehensive, long term general plan for Sacramento was prepared and adopted in 1959. This was followed seven years later with major revisions and updating, most of which were due to a doubling in the City's size through annexations and consolidation with the City of North Sacramento. Since 1966 territorial expansion has not been dramatic; however, outward extension

Formulation of the 1974 General Plan follows closely the planning process used in developing previous general plans. Public involvement, technical assistance, and coordination with concerned agencies and groups, both public and private, have been extensively used by the Planning Commission in formulating the present plan. A description of this process is summarized in the diagram following:



1974 GENERAL PLAN FORMULATION PROCESS

As with previous general plans, the 1974 General Plan for Sacramento is intended to provide guidance, coordination and continuity to the long-range physical development of the City. In this sense, however, it is not intended as a static device incapable of being changed to meet important community needs as they occur. The Planning Commission recognizes this potential limitation and periodically makes revisions. These are followed by a thorough reappraisal and general plan update every five to seven years. Caution is exercised by the Planning Commission and City Council, however, to see that specific changes do not adversely affect related segments within the total Plan.

SCOPE

The General Plan is primarily concerned with that portion of the metropolitan area inside the City of Sacramento, and that portion immediately contiguous to its boundaries. This does not mean to imply that planning for this single jurisdiction is insular in its approach. Goals, policies and programs cited herein are intended to recognize and support the broader related issues of County and regional agencies. Therefore, most of this document's component plans are in fact the result of mutually productive efforts by all levels of local government.

GOALS

General goals are starting points for planning physical development programs within Sacramento. They are broad statements of desire and as such give direction to those responsible for programming and planning the City's development. In this process the goals function as criteria against which alternative courses of action are evaluated. The result when applied to more specific plans is that these goals are usually more realistic and imaginative.

The City recognizes that its future growth is dynamic, affecting the urban growth outside its boundaries as well as being affected internally by external growth forces. It believes that a healthy, attractive environment now and for future generations to enjoy requires considerable effort directed at programs and policies for implementation which address themselves both to the existing urban fabric and to the growth aspects normally associated with expansion. The overriding goal is therefore to improve and conserve existing urban development and, at the same time, encourage and promote quality growth in expanding areas of the City.

Additional broad goals for the physical development of Sacramento follow. These are general in nature and have been amplified upon in their appropriate element sections for greater understanding as they relate to specific issues.

- 1 - Promote the distinctive character and identity of the City in a manner which is compatible with the larger metropolitan area of which it is a part.
- 2 - Achieve safe and adequate housing for all citizens and provide each with an opportunity for choice between alternative living environments.
- 3 - Achieve a safe, efficient, coordinated and balanced system of transportation facilities capable of serving the needs of all citizens.
- 4 - Develop a strong, diversified economic base and provide for the orderly distribution of employment and other economic opportunities.
- 5 - Provide opportunities for a full range of recreational activities to meet the demands of an expanding population with increasing amounts of leisure time.
- 6 - Provide all residents with opportunities for a wide range of cultural, social, educational, health, and commercial activities and facilities.
- 7 - Protect and manage the diverse and valuable natural land, water, and air resources for the use and enjoyment of present and future generations.
- 8 - Develop and maintain a harmoniously balanced ecologic system and provide methods which enable man to continue physical development on the land without upsetting that balance.
- 9 - Conserve and protect the City's older residential neighborhoods.
- 10 - Protect and promote viable, self-containing residential and commercial neighborhoods.
- 11 - Promote a balance between economic development and the neighborhood residential environment in the Old City.
- 12 - Give strong emphasis to the preservation of historically and architecturally significant structures in Sacramento.

URBAN GROWTH

As previously stated in the Goals section, the City of Sacramento is vitally concerned with improving and conserving the existing urban development and, at the same time, encouraging and promoting quality growth in expanding areas. Special care has been taken that the General Plan conforms with the expressed goals of the public. Urban growth, in particular, has been a major concern in the past and will continue to be long into the future.

There is increasing evidence that the public revenues generated by certain types of residential development in the City fall short of meeting the public costs resulting from their development. These unmet costs may occur in education, public works, law enforcement or other governmental areas. Regardless of where the deficit occurs, these costs must be met by other revenue sources.

The issue of the costs of urban growth and how they are to be borne is addressed elsewhere in this document as is the question of implementation measures aimed at providing decision makers with functional economic data on governmental costs.

This General Plan introduces an approach aimed at controlling urban sprawl and emphasizing that quality is a worthwhile goal for newly expanding urban areas. The right kind of development in the right place is important. While it is also important to discourage the wrong developments in the wrong places, the major emphasis is toward positive programs which encourage good timely developments in line with the best use of the land.

It is the policy of the City of Sacramento to discourage urban sprawl in order that wasteful, undesirable and illogical growth along the urban fringe does not occur. By implementing this policy, increased efficiency and greater economy in public services may be obtained, especially with respect to such services as police and fire protection, water and sanitary sewer systems, transportation systems, and schools.

It is also the policy of the City of Sacramento to support contiguous growth by preserving agricultural lands from urbanization, by placing lands not ready for urbanization into agricultural-open space until such time as they are needed, and by encouraging orderly expansion of urban utilities and facilities without their major, unwarranted extension.

TRENDS

The General Plan makes certain assumptions regarding urban growth and urban conservation and renewal which are predicated on past and present experience. The major trends leading to the proposals within this document are stated below in order to give every person a chance to interpret and evaluate the Plan in light of these trends.

- 1 - Residential construction will continue to occur along the City's urban fringe, with the greatest expansion in the next twenty-year period in the North Pocket, South Pocket, Northgate-Gardenland, Meadowview and Valley Hi communities.
- 2 - Natomas north of Interstate 880 freeway will not be needed for urbanization within the next twenty-year period.
- 3 - Greater emphasis will be placed on the retention and preservation of the single family housing stock within the older portions of the inner City.
- 4 - Urban renewal programs will continue to assist rebuilding of deteriorating neighborhoods, wherever they exist within the City.
- 5 - Greater emphasis will be given to design flexibility and the environmental aspects of new residential, commercial and industrial developments.
- 6 - The Central Business District within the Old City community will expand only slightly outward, but will tend to grow inwardly with new building construction and improvement activities.
- 7 - Open space and recreation lands will continue to be publicly and privately provided in increasing amounts and varieties throughout the City.
- 8 - Programmed expansion and ongoing improvement of the existing street system will continue.
- 9 - Mass rapid transit which utilizes a fixed rail system will not be a physical form within the next twenty years; however, there will be greater emphasis on transportation modes other than the automobile.

- 10 - Increasing emphasis will be placed on environmental quality and on urban design which tends to make the overall visual characteristics of the City more attractive.
- 11 - Wholesaling and light manufacturing activities will continue to expand, and strengthen the City's position within the greater Sacramento area.
- 12 - Increased air transportation facilities, linking Sacramento with the major cities and nations, will enhance the City's role within the greater Sacramento and State areas.
- 13 - Employment in the Central Business District will increase, primarily due to continued growth of State government employment and the location of resulting office space needs in the Central Core of the City.
- 14 - There will be increasing public demand to hold the line on tax increases and, in order to provide needed municipal services, there will be new fiscal management approaches by all levels of government.
- 15 - Government expansion will continue to provide increased employment opportunities locally, but at a reduced rate over the 1960 to 1970 period.
- 16 - Urban redevelopment, community renewal, and direct development of public projects will continue to provide jobs and other economic benefits for the City.

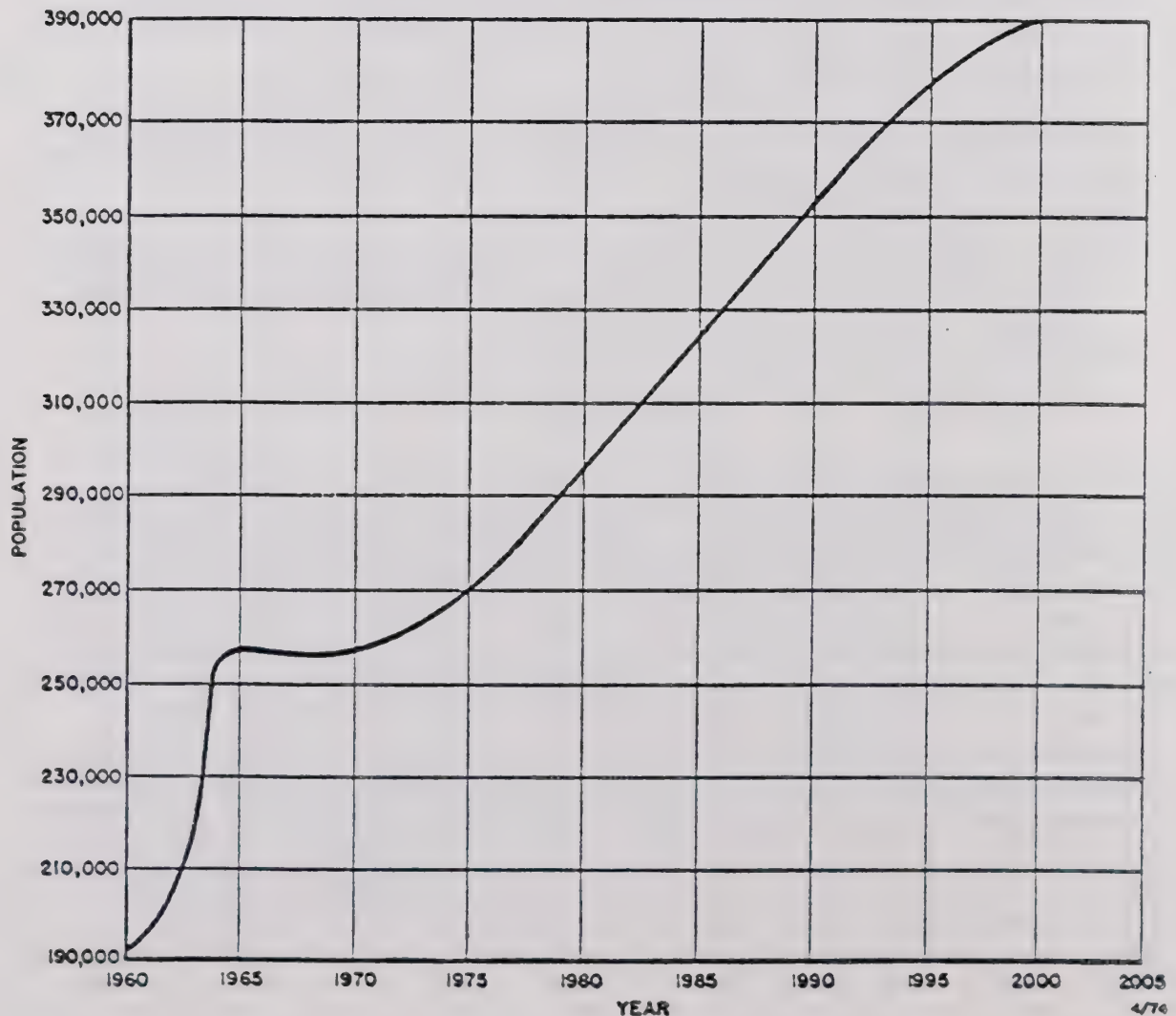
POPULATION

Significant population change in recent years has directly influenced the nature and extent of Sacramento's urban pattern. The 1950 decade was marked by a population increase of over 40 percent, most of which was due to natural increase and in-migration. Outward expansion from the urban core, especially southerly and easterly within the City, took place during this period. This was followed in the 1960's by shifting of population gains to suburban areas outside the City. While major expansion of the City's northerly and easterly boundaries in 1964-65 was the principal reason for a mid-decade population growth of 34.5 percent over 1960, the late 1960's trend reversed itself slightly if a comparison is made between the 1964 census count of 257,822 residents and the 1970 adjusted census count of 257,105 residents. Population changes between 1960 and 1970 within specific communities of Sacramento, and building trends

between 1970 and the present have been carefully analyzed in preparing the forecast for the City.

These and more specific demographic characteristics furnished by the Bureau of the Census, California Department of Finance, and local sources provide the basis for the forecast and assumptions which follow. Like most forecasts and assumptions, however, the ones herein do not provide a firm set of predictions since population increase or decline could be affected by future events which, at this time, are not assumed to occur. Changes in economic structure, migration, or family patterns could materially alter any forecast. It is for this reason that projections of population are frequently reviewed as part of the normal planning process, and adjustments are made based on the most reliable information obtainable at the time.

LONG RANGE POPULATION FORECAST FOR CITY OF SACRAMENTO



Population forecast. A long-range forecast of population growth for the City is shown in the foregoing chart. It forecasts a relatively moderate growth rate for the next twenty-year period to 1995 of 1.70 percent annually. This is an increase of approximately 47 percent over the 1970 count, and assumes the present territorial boundaries of the City can more than adequately accommodate this population increment. Population distribution projections presented in the next section utilize the long-range forecasts for all of Sacramento.

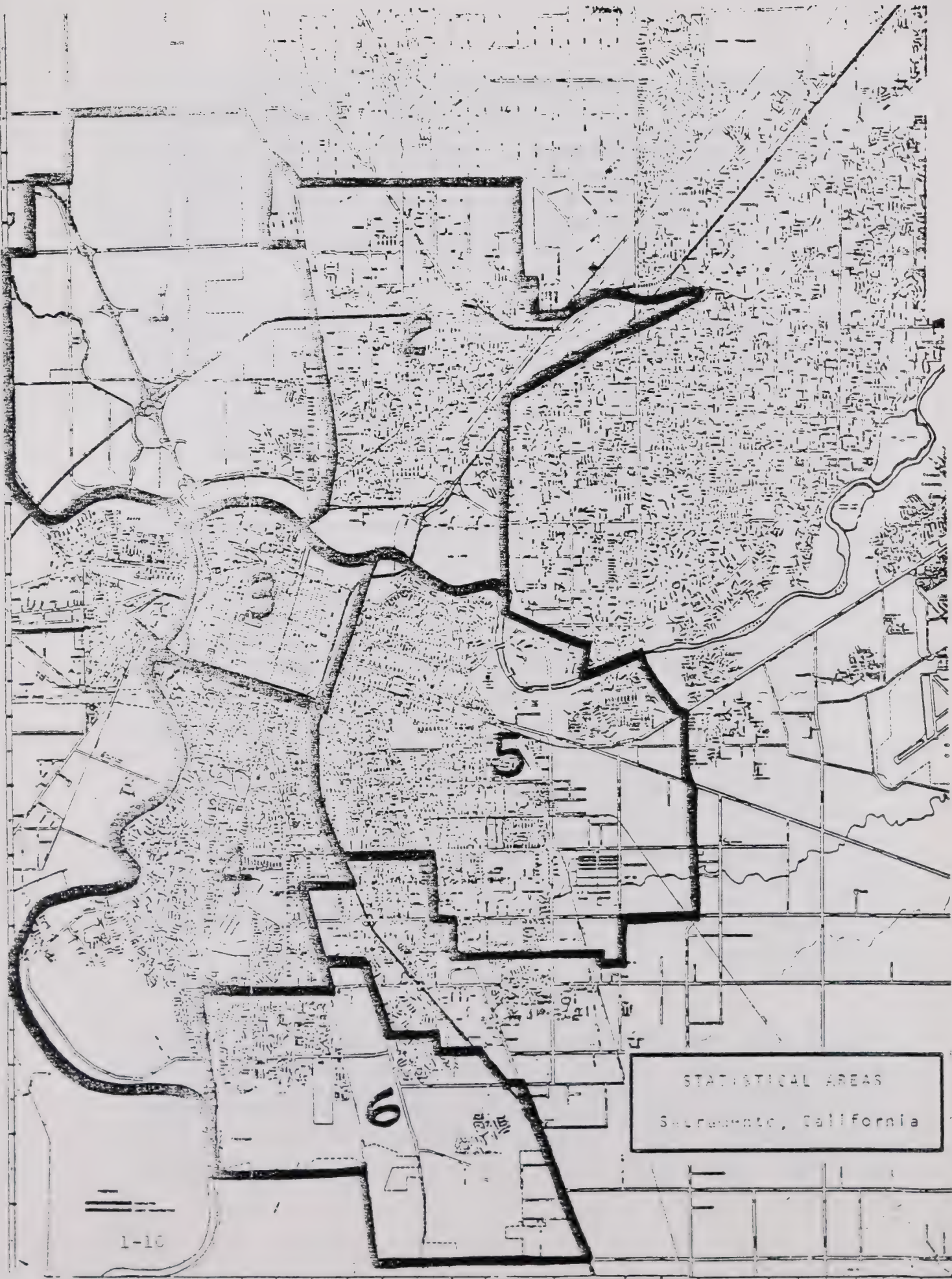
Population distribution. In addition to forecasting total population, estimating the distribution of that population throughout the City is essential to providing insight into future municipal services and probable future land use changes. Such insight is valuable in anticipating and resolving potential problems. The map of statistical areas on page 1-10 and the population trend and forecast table on page 1-11 show the anticipated distribution of population throughout the City.

Population holding capacity. The planned holding capacity of individual communities anticipated to receive growth within the next twenty-year period is based on the development pattern shown on the overall General Plan maps. A comparison of these figures with the 1990 projected population shows that none of the areas are anticipated to be fully developed. In other words, the growth potential within the statistical areas extends beyond the 1990 date. The population holding capacity map is on page 1-12.

Population density. Population density ranges are defined in the residential land use portion of the Land Use Element. These vary with building types and intensity of permitted development. The population densities shown on page 1-13 allow for flexibility in design and reflect the residential land use pattern of the overall General Plan maps. The ultimate densities assume that the number of households will increase more rapidly than the population growth rate since there appears to be a long-term trend for smaller-sized households, thereby reducing population densities over past trends.

PRIORITIES

Implementation of all the specific plans, programs and studies recommended in this document cannot be accomplished realistically within a short period immediately following General Plan adoption. Many of them, however, can and should be implemented as soon as possible, either because they are presently being studied



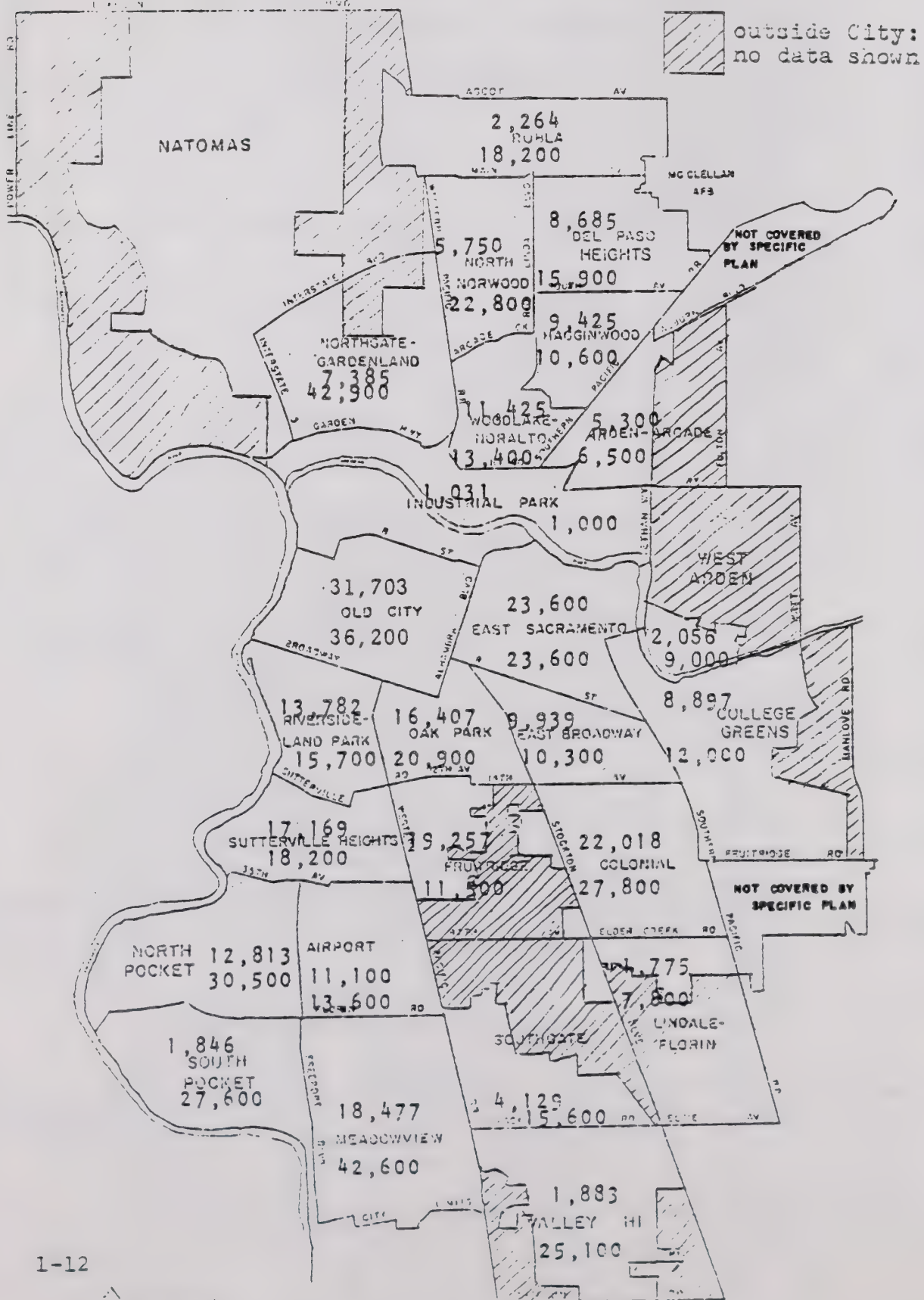
STATISTICAL AREAS
Sacramento, California

1-10

POPULATION TREND AND FORECAST by Statistical Areas within 1970 City Limits

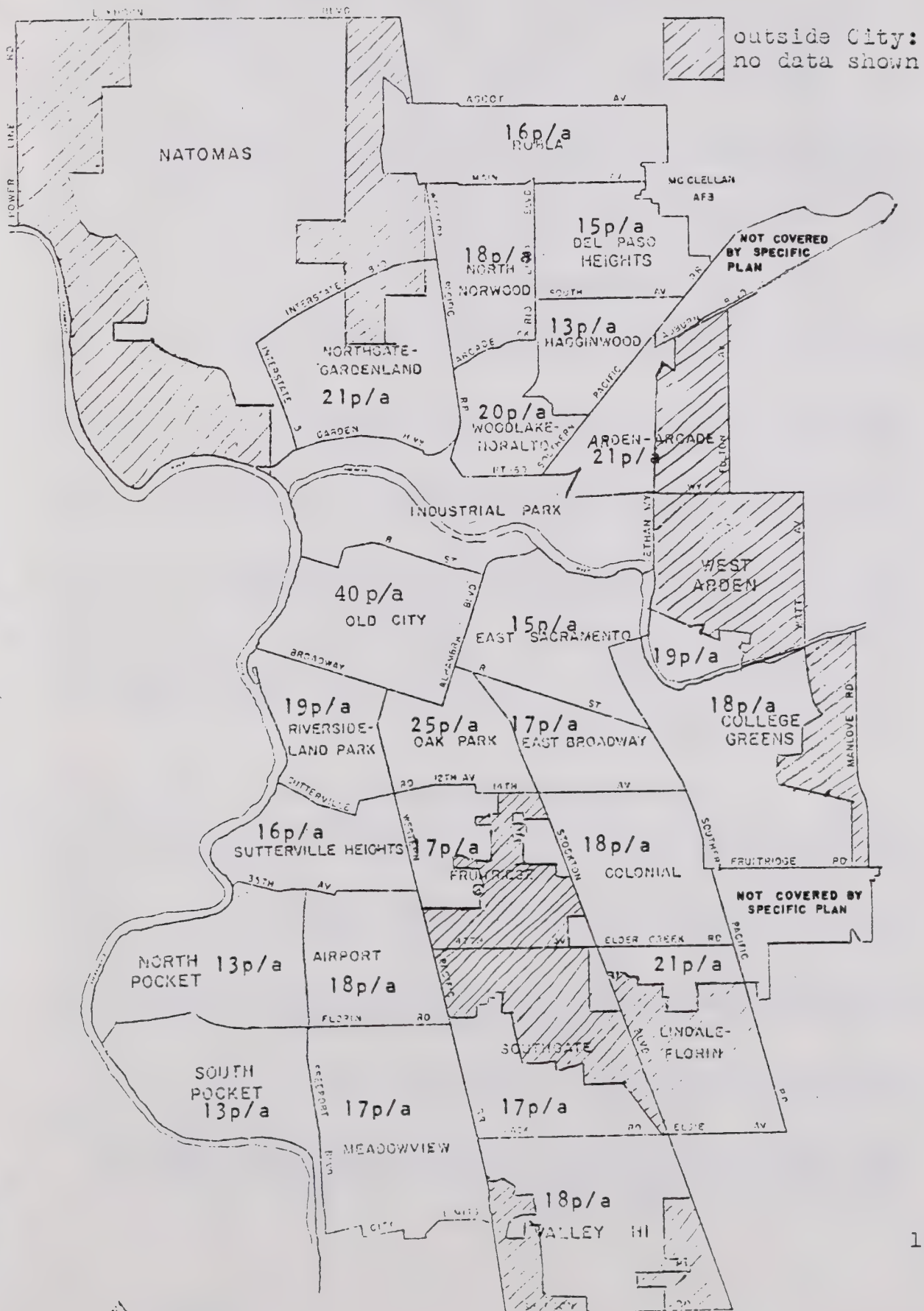
Area	1960 Population	Annual Growth 1960-1970	1970 Population	Annual Growth 1970-1980	1980 Population	Annual Growth 1980-1990	1990 Population
1	8,076	-0.71%	7,500	10.8%	15,600	13.0%	35,820
2	49,290	-1.53%	41,763	0.5%	43,930	0.5%	46,180
3	41,109	-2.04%	32,734	0.6%	34,800	0.7%	37,200
4	53,279	2.11%	64,522	2.1%	78,100	2.3%	96,200
5	84,654	0.13%	85,725	0.6%	91,100	0.5%	95,600
6	7,039	25.32%	24,861	3.3%	33,170	2.7%	42,000
TOTAL	243,447	0.56%	257,105	1.45%	296,700	1.76%	353,000

POPULATION HOLDING CAPACITY
by 1970 population over ultimate population



ESTIMATED ULTIMATE POPULATION DENSITIES

by persons per residential acre



or because they are of such urgency as to warrant immediate attention. By setting priorities of action which consider present constraints and resources available to the City, the Planning Commission and its department staff have a guide for addressing planning issues in appropriate sequence.

The following priorities attempt to define the most critical planning issues currently facing the City. These are grouped in two general priority categories rather than numerically. Omission from this listing of other planning issues is in no way meant to minimize their importance.

Highest Priority

- 1 - Completion of American River Parkway Corridor zoning and development standards. See Sections 6, 7, and 10.
- 2 - Completion of the Central City (Old City) study. See Sections 2, 3, and 10.
- 3 - Completion of update and revision of the Zoning, Subdivision and Sign Ordinances. See Section 10.
- 4 - Initiation of an amendment to the Zoning Ordinance to provide for beautification of major entryways into the City. See Section 10.
- 5 - Establishment of the Capitol Building and Planning Commission, and establishment and updating of the Capitol Area Plan. See Sections 2 and 10.

Next Highest Priority

- 1 - Review and update of the City's Community Plans. See Section 10.
- 2 - Completion of Sacramento River Parkway studies. See Sections 3, 6, 7, and 10.
- 3 - Initiation and/or completion of studies related to public and private transportation methods. See Sections 2 and 3.
- 4 - Completion of the Bikeways Master Plan for the City. See Sections 3, 6, and 10.
- 5 - Improvement in coordination of school site acquisition and disposition with planning for the surrounding neighborhoods and communities. See Section 4.

Implementation of most of the foregoing priorities, other General Plan recommendations, and other matters facing the Planning Commission ultimately involve capital expenditures for public improvements or in some way have an impact upon government service costs. In order to increase the effectiveness of the planning process concurrent with widespread practices of other municipal governments, two basic procedural and policy changes are recommended. The first recommendation is to involve the Planning Commission in the review of the City's yearly Capital Improvement Program. The second recommendation is that a cost/benefit analysis system be developed for utilization by the City's policy making bodies for determining the financial impact of proposed major developments within the City. This latter recommendation may require modification and reorganization of the budgeting procedures to provide meaningful City service cost figures on an incremental basis.

Two additional recommendations are made to increase the effectiveness of the planning process in Sacramento. As part of the community plans updating process, it is recommended that all land uses shown on the adopted plans be reviewed for zoning consistency, and that necessary changes be made to bring these uses into conformity. It is also recommended that the Planning Commission prepare an annual progress report which addresses itself to the status of planning tasks that have been listed in the priority categories above. This latter recommendation will serve as a basis for evaluating and informing the public concerning its progress.

EFFECTUATION

The General Plan in itself is not an effectuation tool that guarantees implementation of the physical development proposals embodied therein. This is accomplished by both general and specific policies which set forth given courses of action. Specific policies of the General Plan are listed in the appropriate elements. Many of these policies state a particular instruction for land use decision-making and are complete in themselves. Others suggest specific kinds of information and programs that must be developed to provide basic tools for implementing the policies contained in the General Plan.

General policies. Five general policies are applicable to all elements of the General Plan. These are:

- 1 - Direction in providing for orderly urban expansion.

- 2 - Utilization of the Environmental Impact Review process.
- 3 - Intensification of coordination in planning efforts.
- 4 - Improvement in urban quality and protection of the environment.
- 5 - Improvement of the planning process.

* * *

- 1 - It is the policy of the City of Sacramento to continue to direct urban growth through orderly expansion of development adjacent to its existing urban fringe.

The City has experienced to date little of the leap-frog urban sprawl type of development characteristic of many cities in California. The existing relatively compact urban pattern has largely been achieved through judicious extension of public utilities necessary for urban growth, coupled with a long-standing City policy of requiring a full range of municipal facilities as the first step in the urban development process.

Secondly, there has been a continuing opportunity to expand these urban services on a reasonably rational step by step, acreage by acreage, parcel by parcel basis.

Finally, as the historic center of the metropolitan area and as the location of a concentrated employment base, Sacramento has continued to experience over the years a demand for close-in residential neighborhood development. It is believed that as the overall Sacramento metropolitan urban area continues to expand in terms of population growth, regardless of the pace, there will always be a demand for close-in compact urban living as contrasted to outer suburban fringe living.

- 2 - It is the policy of the City of Sacramento to direct urban growth through use of the Environmental Impact Review process.

It is believed that the Environmental Impact Review process should be used as a comprehensive tool for evaluating future and extended development patterns of the City. In this manner extended growth can be continuously studied, evaluated and directed to achieve

a maximum of community values for existing and future population increments, regardless of growth rate fluctuations over the coming years.

Contrasted with prior processes, the Environmental Impact Review process makes it possible to include comprehensive inputs into any development plan at the earliest possible date and particularly prior to the implementation stage. By this process, both major public and private improvement proposals can be evaluated to determine the physical, social and economic impact upon the City.

- 3 - It is the policy of the City of Sacramento to intensify coordination of planning efforts with other public and private agencies.

General and precise plans of the City which relate to other jurisdictions of special interest groups should be coordinated with the programs and aims of these agencies or groups. Every effort should be made to follow the coordination process from the planning stage through the implementation stage in order to achieve better and more comprehensive results for all concerned.

- 4 - It is the policy of the City of Sacramento to continue to improve programs directed at enhancing the quality of the urban development.

Underlying this policy is the recognition that man can make the surroundings in which he lives and works a better place through improved site design, beautification programs, the identification and conservation of open space and natural areas, and through any other specific programs which deal directly with enhancing the urban environment. This includes the selective use of urban renewal programs which encourage rehabilitation through rebuilding of deteriorating neighborhoods, rather than mass demolition. Thus, quality environment through application of sound development and redevelopment principles is recognized as a significant measure of urban progress.

- 5 - It is the policy of the City of Sacramento to improve the planning process in order to better provide for the needs of its residents. To accomplish this the following programs or policies are proposed:

- a - Initiate a procedure for Planning Commission review and comment on the City's yearly Capital Improvement Programs.
- b - Develop a cost/benefit analysis system for utilization by the City's policy making bodies for determining the financial impact of proposed major developments within the City.
- c - Direct the Planning Commission to prepare an annual progress report on the planning tasks listed in the previously mentioned priority categories. This report should be made available to the City Council and to the public.
- d - Review the Zoning Ordinance and rezone land to be consistent with the policies of the General Plan.
- e - Review land uses for zoning consistency as part of the community plan update process, and make the appropriate changes.
- f - Evaluate and establish, where appropriate, new ordinances and performance standards for the implementation of the policies in the General Plan.

Plan elements. The ten elements of the 1974 General Plan contain specific proposals and programs for implementing the broad policies stated above. These elements are:

Land Use Element: residential, commercial, industrial and other land uses.

Circulation Element: major streets, pedestrianways, bike-ways, airports, railroads, deep water port, public transit.

Public Facilities and Services Element: recreation and parks, schools, fire stations, libraries, medical and health care facilities, solid and liquid waste disposal facilities, water supply facilities, police services.

Housing Element.

Open Space Element: Managed resource production, resource preservation, outdoor recreation, public health and safety, visual amenity, utility.

Conservation Element: Land resources, water resources and flood control, biological resources.

General Safety: seismic safety, fire safety, flood safety, and other safety considerations.

Noise Element.

Community Design Element.

Air Pollution Element.

LAND USE ELEMENT

SECTION TWO

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

LAND USE ELEMENT

GOALS

- 1 - Allocate residential, commercial, industrial and other land uses in such a manner as to result in a desirable urban environment which satisfies the needs of the total community.
- 2 - Provide safe, stable and attractive residential areas in which to live; functional and efficient commercial and industrial areas in which to work.
- 3 - Develop a strong, diversified economic base which provides for the orderly distribution of employment opportunities and supports the central business district as a major employment center within greater Sacramento.
- 4 - Utilize open space resources in such a way as to provide desirable active and passive recreation areas that benefit the City's residents and protect productive agricultural lands, nature areas, and necessary floodways.

LAND USES

The primary purpose of the Land Use Element is to provide a plan for the general location, distribution and intensity of various land uses in the City of Sacramento. The importance of such a plan lies in the fact that land and how it is utilized makes it a valuable resource of an urban area such as ours. A comprehensive approach to this resource can be accomplished in part through development of a land use plan which is implemented through specific programs and policies.

Of the various land uses in Sacramento, four broad categories can be identified: residential area, commercial areas, industrial areas, and open space-recreation areas. A fifth category, government services, is a more specific land use but nevertheless a very important feature locally. Land in this category is briefly discussed in the section entitled "Other Land Uses."

Several related aspects of land use are discussed in other elements of the General Plan for the convenience of clearer understanding and compliance with planning laws. A logical extension of residential land use deals with provisions for housing quality and distribution. This aspect is discussed in the Housing

Element Section. In addition, open space and recreation land use is discussed in detail in the Public Facilities and Services Element and the Open Space Element of the General Plan. Classification of land uses into these separate areas only emphasizes the importance of viewing the overall system in its entirety. Not only must individual land uses for the City be based on the most appropriate location in each area, but they should be based on the most satisfactory relationship between different land uses as well.

RESIDENTIAL LAND USE

Importance. Residential land use is the single largest consumer of space in most urban areas across the country. A special land use study completed by the Planning Department in late 1971 indicated that residential land use accounted for 21 percent of the total area of Sacramento. By 1980 residential development is projected to cover 26 percent of the total City area, and by 1990, 30 percent.

In addition to the quantitative importance of residential uses is the important aspect of providing residents with safe, stable and attractive places in which to live. This is accomplished by indicating the distribution of residential land uses, both present and proposed, on the overall General Plan map; and by defining broad residential categories which set forth building intensity standards (commonly referred to as densities) and indicating these on the community plan maps for each community of the City. Schools, open spaces, utility systems, shopping centers, streets and other related services are located so as to best meet the needs of the residents. Provisions for these services are discussed in other elements of the General Plan.

Permeating all aspects of residential land use planning is the concern for quality. The present Plan allows for greater flexibility and variety in residential design by allowing for more open space, clustering of homes, and other techniques to make living areas more pleasant.

Residential distribution. Urban residential areas include lands now served by urban utilities and facilities and lands to which such services can be logically and economically extended in the near future.

The general distribution pattern is one of more intense residential development on three sides of the Central Business District and a gradual lessening of intensity as residential development extends outward toward the urban fringe areas. Residential

building intensity is permitted to increase in many instances where it is adjacent to major streets and commercial corridors or nodes, but not to the degree indicated within the central city area.

The distribution of existing residential development within those areas of each community that have been designated for residential land uses is shown on page 2-4. Data shown is the result of a special land use study conducted by the Planning Department in 1971.

Residential categories. For purposes of the General Plan it is important to note that the overall General Plan map shows only one category for residential land use, and therefore does not attempt to discern degrees of residential building intensity. This is accomplished by means of the individual community plans for Sacramento since they contain adopted residential land use refinements that are an integral part of the total General Plan document. Residential categories found in the community plans refer to building intensity as building density. Density is expressed as the number of dwelling units per net acre of residential land excluding local streets. The following residential density categories have been utilized in the adopted community plans and are recommended for retention within the areas indicated except as noted in the section under Old City residential needs:

Heavy density multiple family (R-5 zone): This category permits up to 87 dwelling units per acre and is limited to the Old City community, generally adjacent to the downtown business area. Additional units of up to 174 per acre are permitted if lot coverage is reduced in proportion to the increased number of units. An Old City block in the heavy density multiple family category contains between 200 and 250 dwelling units and 1.5 persons per unit under typical development standards.

Medium density multiple family (R-4 zone): This category permits up to 58 dwelling units per acre and is located in the Old City, generally more distant from the downtown commercial concentration than the heavy density multiple family areas. It is also permitted in some areas adjacent to the Old City community. An Old City block developed in the medium density multiple family category typically contains between 75 and 100 dwelling units and 1.8 persons per unit.

Map of Sacramento, California, showing land parcels with acreage and percentages. The map includes labels for various areas and a legend for 'outside City'.

Legend: outside City

Map Labels:

- NATOMAS
- 145ac 15%
- 281ac 25%
- 501ac 50%
- 500ac 50%
- 507ac
- 224ac 84%
- 22ac 100%
- INDUSTRIAL PARK
- 504ac 98%
- OLD CITY
- 1008ac 100%
- EAST SACRAMENTO
- 177ac 43%
- WEST ARDEN
- 695ac 96%
- RIVERSIDE-LAND PARK
- 636ac 90%
- CAX PARK
- 562ac 97%
- EAST BROADWAY
- 455ac 76%
- COLLEGE GREENS
- 971ac 96%
- SUTTERVILLE HEIGHTS
- 1521ac 89%
- 1041ac 76%
- COLONIAL
- 609ac 94%
- AIRPORT
- 483ac 48%
- NORTH POCKET
- 203ac 14%
- SOUTH POCKET
- 1013ac 48%
- 364ac 45%
- MEADOWVIEW
- 112ac 7%
- VALLEY HI
- NOT COVERED BY SPECIFIC PLAN

Light density multiple family (R-3 zone): This category permits up to 29 dwelling units per acre. Most such multiple family development is in the form of apartment clusters that are scattered throughout the City, generally at the periphery of predominantly single family residential neighborhoods. Light density multiple family areas are often used as buffers separating single family areas from major streets and commercial developments. An apartment complex containing 100 units could contain from 250 to 325 persons.

Light density residential (R-1, R-1A, R-2, R-2A and R-2B zones): This category permits a variety of relatively low density housing types. The most common form of development is the single family home. A typical neighborhood in an R-1 zone contains between 3 to 5 dwelling units per net acre and population densities averaging from 3 to 4 persons per dwelling unit. Duplexes and townhouses in the R-2 and R-1A zones respectively have slightly higher densities of up to 15 units per net acre, but retain most of the physical characteristics associated with single family homes. R-2A and R-2B zones contain garden apartments as their principal form of residential development. The R-2B zone is designed to offer a broad range of densities below the light density multiple family range. Up to 21 dwelling units per net acre are permitted. There are generally less persons per dwelling unit in the R-1A, R-2, R-2A and R-2B zones than in the R-1 zone.

Old City residential needs. Both the existing community plan and residential zoning districts of the Old City permit relatively high residential densities compared with the remainder of the City. The medium and high density multiple family areas could allow an overall density in the Old City of 69.2 units per net acre as compared with 29 units per net acre for light density multiple family areas outside the Old City. These density standards have existed since the middle 1950's when the entire city area was experiencing a relatively fast rate of urban growth. The ensuing twenty-year period, however, has shown a somewhat static trend in both the number of Old City residents and housing units. Thus the situation was contrary to that experienced in most other areas of the City within the same time period. More recent building trends indicate a similar situation, with the present overall residential density of 30.4 units per net acre being only slightly higher than that permitted with maximum light density multiple family development.

A recently appointed advisory committee working in conjunction with numerous public and private resource groups has begun a comprehensive study of the central city. The study will be

primarily concerned with the more important physical and economic issues presently facing the Old City. Because the residential neighborhoods within the Old City are extensive and have indeed experienced some renewal and growth problems unique to their locality, specific recommendations concerning them should be dealt with in the Central City Study. Among those factors which should be included in the study are methods of encouraging the assemblage of lots for more flexibility in residential design, methods for aggregating residential blocks into superblocks which promote reduced vehicular penetration and increased pedestrian space, and methods of providing adequate amounts of off-street parking to serve its residences. The general problems of determining suitable residential densities and of identifying alternative measures for encouraging new and renewed housing should also be made part of the Central City Study.

Residential policies. The following policies on residential land use are recommended for adoption:

- 1 - Maintain a balance between residential building intensity (density) and the capacity of circulation and other service-system facilities.
- 2 - Continue to make environmental quality an important consideration in all planning decisions related to implementation of residential development.
- 3 - Preserve established residential areas from deteriorating influences.
- 4 - Recognize new concepts for residential land use design and technology, and consider their appropriate use with existing forms of residential development.
- 5 - Encourage more privately owned recreation and open space facilities as well as other amenities in residential projects.
- 6 - Continue to seek solutions to development of large lots and scattered housing areas in the more intensely urbanized sections of the City.
- 7 - Continue to revitalize deteriorating residential areas by using the most appropriate programs and tools available to the City.

- 8 - As part of the Central City Study, specific methods and recommendations should be identified which encourage the conservation and rehabilitation of the existing residential uses in the Old City.
- 9 - Prevent the intrusion of incompatible uses into residential areas throughout the City.
- 10 - Prevent incompatible residential development adjacent to the American and Sacramento River Parkways, and in particular incompatible visual intrusion into the American River Parkway.

COMMERCIAL LAND USE

Importance. Commercial land use is important within an urban area because trade would not be possible without the facilities of commerce, and without trade, most cities would have little reason to exist.

The importance of commercial activity emphasizes the need for a functional balance of commercial land uses in relation to all other land uses. Too little commercial space stifles healthy competition and places limits on opportunity and potential. Too much commercial space leads to high vacancy rates, incompatible uses, neighborhood friction, and in many cases, blight.

Function. Commercial areas provide locations for the sale of goods as well as services, offices for business, and professional activities. The primary objectives of the land use plan for commercial areas are:

- 1 - To group related and compatible businesses whenever possible.
- 2 - To encourage attractive developments so that commercial areas can become more enjoyable places to work and to do business.
- 3 - To locate shopping centers at major street intersections about one mile apart.
- 4 - To discourage strip commercial development along major streets.

Progress since the 1965 Plan. Since the 1965 General Plan was adopted, there have been several new commercial facilities completed and many existing developments expanded or improved.

In the Central Business District, for example, many new improvements have helped strengthen the regional role of this commercial-office complex. Among these new improvements are the Chinatown complex; new private office developments along Capitol Mall; and increasing retail outlets in the Sacramento Historical Center area and in the Downtown Plaza Shopping Center area. Upon completion of the Community Center complex, further CBD development is anticipated.

Distribution. The proposed general distribution of commercial uses is shown on the overall General Plan map. These groupings are largely in accordance with adopted recommendations of the individual community plans for the City and the 1965 General Plan. The largest concentration of business locations is in the downtown area with another large segment distributed among various shopping centers in outlying suburban areas.

Distribution of proposed shopping centers has been the subject of a more detailed report adopted by the City nine years ago, yet still applicable today and used in the placement of proposed shopping centers in outlying areas of the City. This report, "A Plan for Shopping Centers," indicates that small shopping centers (about 50,000 square feet of floor area) should be located about one mile apart; medium shopping centers (up to 250,000 square feet of floor area) about three miles apart; and large centers (up to 750,000 square feet of floor area) from six to eight miles apart; all at intersections of major streets.

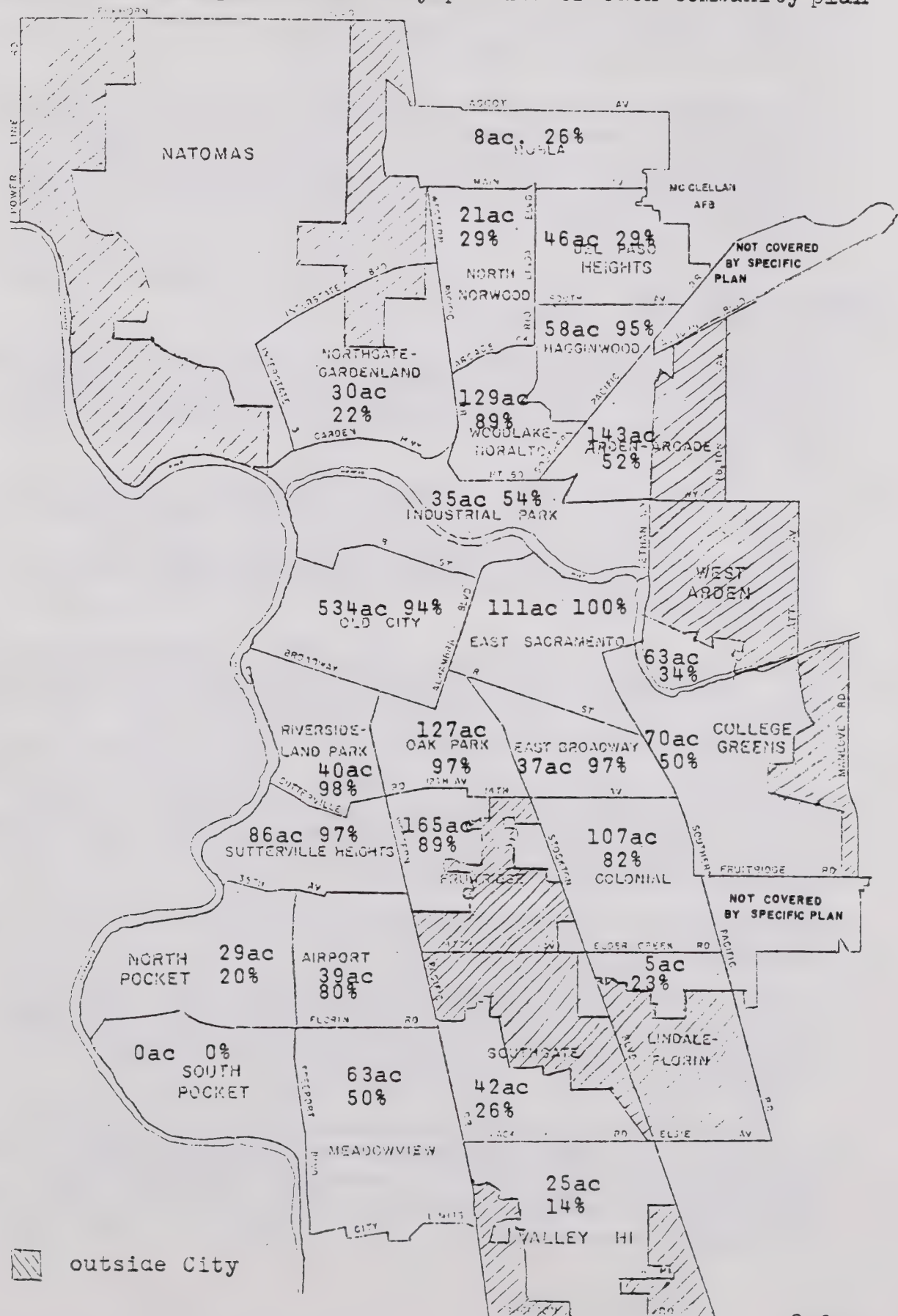
The balance of commercial areas indicated on the overall General Plan map occurs in strips along major streets and in scattered locations. Generally, the majority of these commercial strips are older developments existing prior to the post-war advent of integrated shopping centers. While this is not the best pattern for commercial development, it is recognized that these commercial strips constitute an important part of the existing commercial services of the overall community and therefore are reflected in the commercial land use pattern of the Plan.

The distribution of existing commercial development within those areas of each community that have been designated for commercial land uses is shown on page 2-9. The outlying, more suburban areas generally have a higher percentage of vacant, planned commercial land, since complete urbanization has not yet occurred.

Commercial categories. For purposes of the General Plan, two categories of commercial land use have been used. These are:

DISTRIBUTION OF COMMERCIAL DEVELOPMENT IN 1971

by existing developed acres and by percentage of total commercial area designated for City portion of each community plan



Central Business District: This category refers to all commercial enterprises and office building complexes within the downtown Sacramento area.

Commercial and offices: This category refers to retail stores and service establishments, business office centers and institutional or professional buildings, and highway-oriented commercial uses. Uses in this category are spread throughout the balance of the community outside the Central Business District.

Commercial policies. The following policies on commercial land use are recommended for adoption:

- 1 - Continue to support programs and development projects directed at retaining and improving the role of the Central Business District as the major retail trade and financial center for the region.
- 2 - Discourage the extension of commercial strips, and give special attention to those existing problem areas by initiating studies to regroup them into viable commercial districts which serve the needs of their adjacent neighborhoods and communities.
- 3 - Require that heavy commercial uses, such as warehousing and other distribution-type activities, be located in areas which are well buffered from residential development and other land uses where incompatible relations would be created.
- 4 - Guide development of shopping centers of appropriate size and location according to recommendations detailed in the 1963 report, "A Plan for Shopping Centers" until such time as this report can be reviewed and updated.
- 5 - Promote shopping center developments that are in harmony with neighboring areas.
- 6 - Develop methods which better coordinate City and County controls affecting the placement of commercial land uses where these uses have a service impact on both jurisdictional areas.
- 7 - Give special attention to the proper distribution and site selection for highway commercial activities along State highways and freeways with the aim of providing an adequate amount of services at a limited number of locations for use by interurban travellers.

- 8 - Prevent incompatible commercial development adjacent to the American and Sacramento River Parkways, and in particular intrusion into the American River Parkway.

INDUSTRIAL LAND USE

Importance. The economic future of Sacramento depends to a large degree upon the strength of its employment base because people live where they can work. In addition to government and commerce, adequate industrial land must be reserved for present and future industrial needs, not only to maintain and supplement employment opportunities, but to assist in the retention of a tax base for the support of essential public services.

Function. Industrial areas provide locations for manufacturing, distribution, warehousing, processing, utilities, heavy transportation, and other kindred uses. The primary objectives of the land use plan for industrial areas are:

- 1 - Industrial sites should be readily accessible to major transportation routes.
- 2 - Industrial sites should be provided with a full range of utility services that are conveniently located or readily obtainable.
- 3 - Distinct boundaries, natural or man-made, should separate industrial and residential areas.

Progress since 1965 Plan. Manufacturing activity has risen only slightly in recent years. Several factors, however, indicate that industrial expansion will continue and thus have a direct effect on the consumption of land for industrial usage. California is assessed by market analysts as having future industrial growth potential, Sacramento receiving its share. Since 1965 new sections of the freeway system serving the State and nation have been opened, Metropolitan Airport has been established, and the Deep Water Port has expanded its market activities...all of which are instrumental in industrial growth. New heavy commercial and light industrial establishments have been added since the last general plan was approved, most of these in areas previously designated for industrial uses. Recent trends indicate that the greatest share of growth will be in medium and light industry as more midwestern and eastern manufacturers recognize the good market potential, distribution facilities, and attractive living environment of the greater Sacramento area. To meet this growth, the City has planned nearly 7,000 acres of industrial use, 54 percent of which is currently available for new growth.

Distribution. The proposed general distribution of industrial uses is shown on the overall General Plan map. Major industrial complexes can be grouped into five locations with smaller complexes proposed in other locations throughout the City.

- 1 - An area beginning north of the American River and extending to Del Paso Park along the transportation corridor of the Southern Pacific Railroad and Interstate 80 freeway. Much of this is already developed.
- 2 - The industrial areas located on the westerly side of McClellan Air Force Base, and easterly of the Natomas East Main Drainage Canal on either side of Main Avenue. Both these areas are relatively undeveloped at the present time.
- 3 - The largely developed industrial and heavy commercial areas that extend along the railroad corridors of the Old City, and which border that community on the southwest, and north adjacent to the American River Parkway.
- 4 - The Folsom Boulevard and College Greens area which extends from Power Inn Road and Florin Road northeasterly. Within this complex is the Sacramento Army Depot and scattered industrial parks; however, much vacant land still remains for future expansion.
- 5 - The industrial area between Franklin Boulevard and the Western Pacific Railroad, 38th Avenue and Florin Road. Within the City portion of this area, scattered industrial park development occurs; however, there is vacant land for future industrial expansion.

Industrial categories. Industrial land use shown on the overall General Plan map includes heavy commercial uses such as those for warehousing distribution types of activity; light industrial fabricating activities; and heavy industrial uses such as those for the manufacture or treatment of goods from raw materials. Industrial land uses within these general categories are sometimes developed as industrial parks which have uniform landscaped setback requirements and special sign regulations that result in a total development in keeping with the modern concept of attractive industrial facilities.

Industrial policies. The following policies on industrial land use are recommended for adoption:

- 1 - Continue to protect residential areas that are adjacent to industrial land by requiring within the industrial park developments separate internal street systems and other amenities that serve as buffers.
- 2 - Provide adequate land for industrial growth.
- 3 - Minimize adverse aesthetic and environmental conditions which could arise from specific industries or site locations by encouraging the use of industrial park development practices.
- 4 - Encourage new industrial development within the community to broaden the opportunities for employment and provide for a broader, more diversified tax base.
- 5 - Prevent industrial land uses within the American River Parkway. Also prevent incompatible industrial development adjacent to the American and Sacramento River Parkways, and in particular incompatible visual intrusion into the American River Parkway.

Government services. Government services occupy large amounts of land area within Sacramento. These range in size from the 410 acre U.S. Sacramento Army Depot on the east side of the City to numerous small offices and facilities of local government and special districts scattered throughout the urban area. Within the downtown area, the State of California occupies numerous blocks immediately south of the Central Business District. This complex is supplemented by Federal, County, and City government uses on the north and west. Since all of these have a significant impact upon the adjacent commercial and residential sections, especially in the central city, coordination of planning activities is essential.

Past cooperation of all governments in planning for their physical expansion needs has been generally satisfactory and is expected to continue. Since 1966, however, little progress has been made in effectuating the actual construction of the State Capitol complex. The City has shown concern for continued coordination by officially urging the reestablishment of the Capitol Building and Planning Commission, and requesting revision and updating of the Capitol Area Plan.

Open space-recreation land use. The value of this type of land use has received increased emphasis in recent years...to the extent that it merits detailed separate discussion in both the Public Facilities and Services Element and the Open Space Element of the General Plan. Provisions for open-space recreation lands have also been incorporated extensively in the overall General Plan.

CIRCULATION ELEMENT

SECTION THREE

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

CIRCULATION ELEMENT

GOALS

- 1 - Provide a balanced multi-modal system of transportation which serves the needs of the total community and provides viable alternatives to private automobile useage.
- 2 - Provide transportation facilities that insure safe, aesthetic, efficient and convenient movement of people and goods throughout the City.
- 3 - Encourage overall transportation design which integrates sub-areas of Sacramento into a cohesive community, promotes sound land utilization and preserves environmental quality.
- 4 - Promote and encourage to the highest degree possible a public transit system capable of serving the greater Sacramento area.
- 5 - Provide a comprehensive system of utilitarian and recreational bikeways which serve the Sacramento community, with particular emphasis on off-street bike trails.

IMPORTANCE

The primary purpose of the Circulation Element is to provide a transportation system that accommodates the movement of people and goods throughout Sacramento. It is self-evident that business districts, industrial areas and residential sections of the City cannot serve their functions unless there are convenient and efficient methods of moving people to and from or between these areas. The transportation system, especially the major street network, has a significant influence on the pattern of land uses it is intended to serve. It is important therefore that the transportation system be well planned in coordination with the other elements of the General Plan.

MAJOR STREETS

General description. The street network is the most extensive transportation system in the City, surpassing all others in length, land area and volume of goods and person movement. Freeways and highways radiate outward from the Old City with interconnecting bypass freeways on the periphery of Sacramento. The Old City has a grid-like street pattern while the portion outside is a combination grid and curvilinear patterns.

City responsibility. Approximately 96 percent of the presently estimated 1,200 miles of public streets in Sacramento are

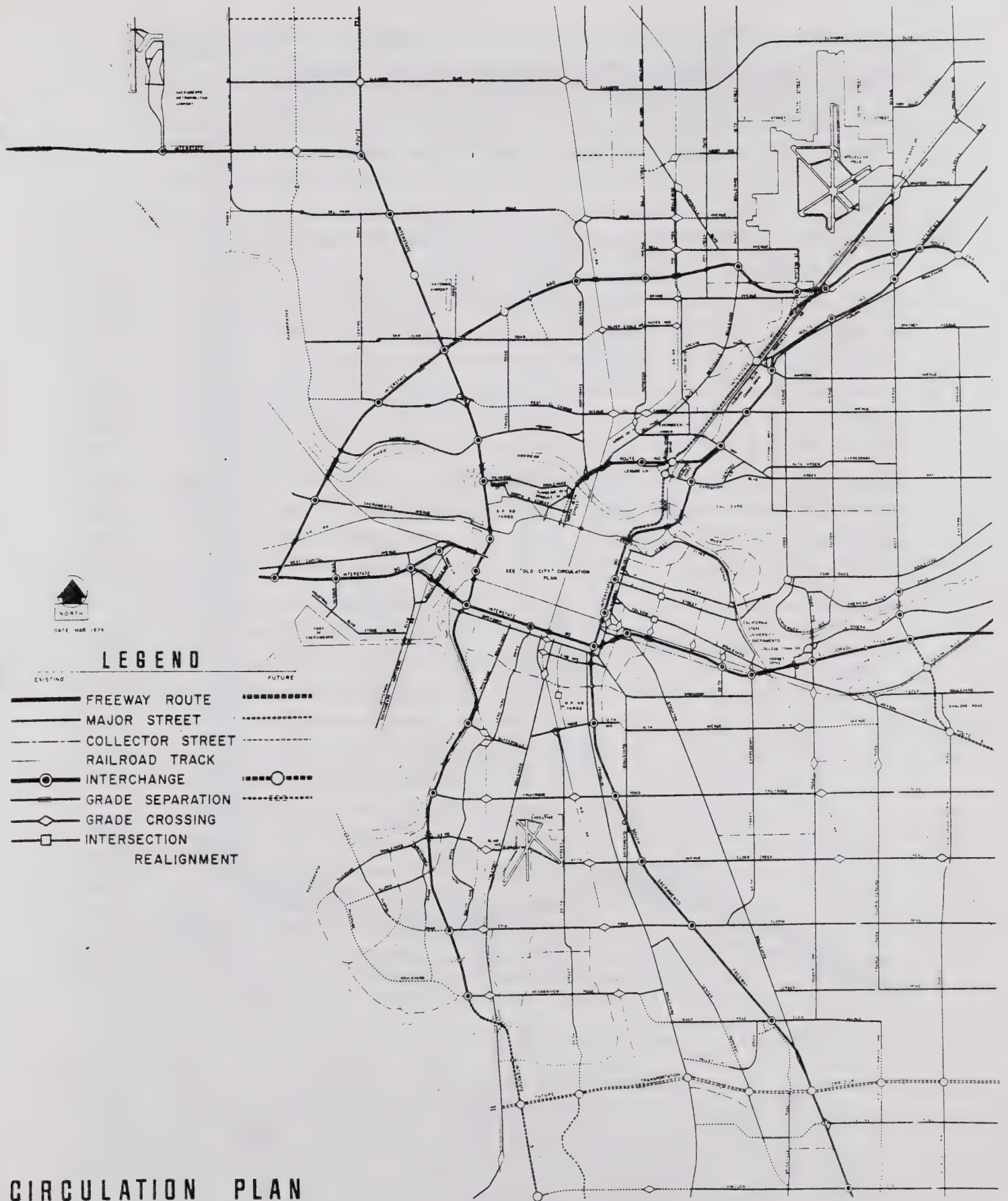
the direct responsibility of various divisions of the City government. These range from semi-rural two-lane dirt roads to divided multi-lane express streets. The City's streets were responsible in 1971 for carrying over 60 percent of the estimated 4,600 vehicle miles travelled daily. The remainder of the street network consists of freeways and highways which are the responsibility of the California Division of Highways.

Function of minor streets. Sacramento's streets are grouped according to function into major and minor street systems. Roughly two-thirds of all City streets are within the minor street system. These are generally two lanes wide, carry low volumes of vehicular traffic, have 25 mph speed limits by State law and require little if any traffic control at intersections. Subdivision streets along which people reside are the most common example of streets in the minor street system. Their main function is to provide access to adjoining property. In general, these streets are arranged in discontinuous patterns to discourage use by through traffic.

Function of major streets. Major streets are characterized by long continuous routes with stop sign, signal or grade separation controls at intersections. These streets generally carry large volumes of traffic and are frequently multi-laned. Their function is to link sizeable traffic generators such as population centers, shipping, industrial and recreation centers; and to link other major streets. Freeways, intercity highways, major and collector streets are in this category.







The Circulation Plan. The Circulation Plans on pages 3-3 and 3-4 indicate existing and proposed major streets and are based on future land use and development needs within the Sacramento area. County streets and highways have been categorized using the City classification system for graphic simplicity. The Plans are not an attempt to show the timing of improvements but rather to identify the ultimate network that might logically be built based on present growth characteristics within the next twenty year period. Major streets shown on the Circulation Plans are:

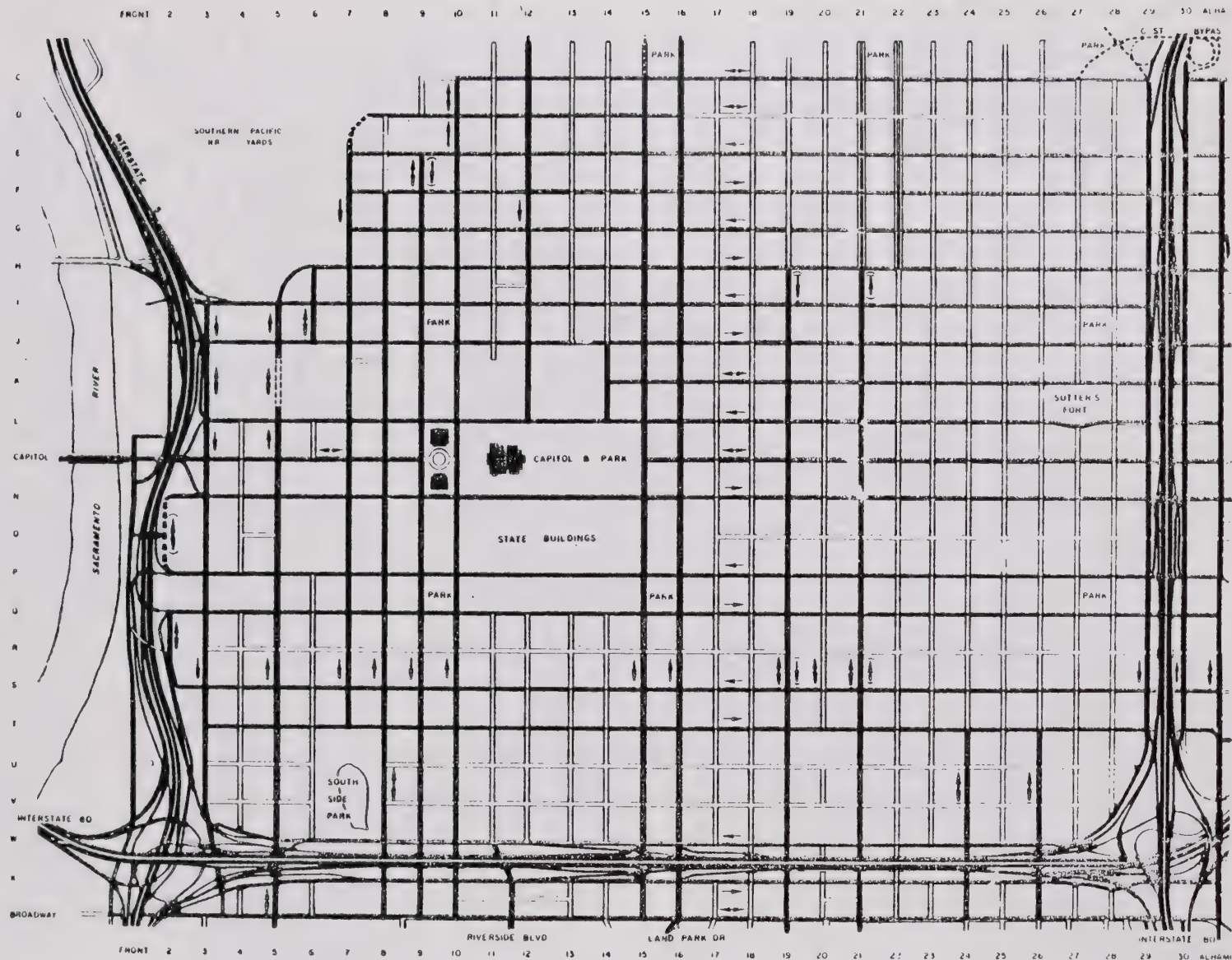
- 1 - Freeways. Freeways primarily function as through highways for carrying large volumes of interurban and interstate traffic. Other dominant characteristics are continuous high volume traffic flow, prohibited access to and from abutting properties, and utilization of grade separations at limited intersections.
- 2 - Major streets. Major streets carry the bulk of traffic between the various communities of the City. These are generally designed with four lanes, some having median strips and most having direct access from abutting properties or limited access if the function is largely that of an expressway.



CIRCULATION PLAN

LEGEND

-  FREEWAY ROUTE
-  MAJOR STREET
-  FUTURE ARTERIAL STREET LOCATION
-  DIRECTION OF TRAFFIC FLOW
-  FUTURE DIRECTION OF TRAFFIC FLOW
-  GRADE SEPARATION



EXISTING OLD CITY CIRCULATION PLAN

3 - Collector streets. Collector streets collect and distribute traffic between major streets and minor residential streets. These are also needed within some commercial and industrial complexes. Access is generally permitted to adjoining properties.

Expansion of the existing major street system will logically be greatest in those sections of the City forecasted for significant growth over the next twenty years. These sections are primarily located in the Northgate-Gardenland, North Pocket, South Pocket, Meadowview and Valley Hi communities. Completion of the remainder of Interstate 5 south from the Old City by 1975 will serve as a catalyst to expansion of the proposed, adjacent major street system. Freeway route 99 in the Natomas area is scheduled for construction before 1990 although its completion will primarily have the effect of serving north-south inter-city commuters.

Future requirements: Most of the future major street system needs of the anticipated growth areas of the City are shown on the Circulation Plan map. The proposed streets, however, cannot be precised and refined in most cases until such time as new developments are submitted for approval. Likewise, future changes in alignment or function over the next twenty-year general plan period are difficult to predict ahead of time. It is for this reason that deficiency studies are conducted periodically, and the resulting recommendations for changes to the major street system are then evaluated against other improvement needs at the time.

One need that requires continual monitoring and adjustment to the street system is the impact of the automobile upon the City's land uses and residents. Prior to the recent energy crisis-fuel shortage, for example, the Traffic Engineering Division forecast that there would be a fifty percent increase in vehicular miles travelled in the City by 1990 if past trends continue. This increase would have a major impact on the total street system, especially in the Central City area with its strong concentration of government and business activities. With the fuel shortage expected to continue in the foreseeable future, however, governmental policies that encourage the expansion and use of public transit are likely to reduce the impact of the automobile on the total street system.

In particular, the study is needed of the impact of the automobile upon the residential districts of the Old City. Prior public hearings have been the basis for residents within these areas to voice concern regarding excessive traffic, parking problems and related safety. Alternatives that should be addressed include, but should not be limited to, closure of unnecessary residential streets to through traffic, rerouting of the major street system so as to circumvent neighborhoods where possible, and changes to present parking provisions

which would encourage adequate off-street parking. This specific study should be made a part of the Central City Study which is currently underway.

This Plan recommends that a number of measures to ameliorate the negative impact of increased automobile useage be implemented. To begin with, a special study should be initiated to determine the optimum transportation alternatives for the City. Following this, incentive programs should be implemented to encourage use of alternative modes of transportation. Specific recommendations will also be made for the reduction of automobile traffic on congested streets, and the rerouting of commuter traffic around residential neighborhoods wherever possible. In addition, several programs for better utilization of public transit and bicycles are discussed following the major street section.

In May of 1974 the State Department of Transportation recommended that legislative Route 148 freeway be dropped from the construction program and that appropriate disposition of the right-of-way be executed. Because the City will eventually need a major east-west transportation corridor in that general vicinity to serve future development, it will be necessary to give high priority to the reservation of the right-of-way and to take appropriate action for its retention.

Major street policies. Policies relating to major streets are as follows:

- 1 - Initiate a study to determine and promote the optimum transportation alternatives for the City of Sacramento. Following this study, implement incentive programs to encourage the use of alternative modes of transportation.
- 2 - As part of the Central City Study make specific recommendations which reduce the impact of the automobile upon residential districts within the Old City.
- 3 - Closely coordinate the review and updating of the major street system with County, regional and State agencies where mutual or reciprocal responsibilities are involved.
- 4 - Land development proposals shall continue to be approved subject to meeting the requirements necessary to implement the planned major street system.
- 5 - Utilize street design criteria that provide integration of all modes of transportation that use the street system, i.e., pedestrians, bicycles and transit.
- 6 - Wherever economically feasible, designate and reserve adequate rights-of-way to meet anticipated traffic volumes and provide for the needs of traffic safety.

- 7 - Give high priority to preparing viable alternatives to proposed action by the State of California to rescind the freeway designation for Route 148, and to dispose of the acquired right-of-way property.
- 8 - Locate and design major streets in such a manner as to complement the residential neighborhoods, business centers and other homogenous areas served, and to minimize related aesthetic problems.
- 9 - Promote and utilize methods for minimizing noise and air pollution associated with heavily travelled traffic corridors.
- 10 - Encourage the development of better landscaping and beautification standards for all streets and freeways in Sacramento.

PEDESTRIANWAYS

Intent of pedestrianways section. It is the intent of the General Plan to recognize pedestrianways as a separate and important aspect of the Circulation Element. The primary purpose is to promote safer, more aesthetically pleasing, and efficient movement of foot traffic throughout the City. This emphasis departs from the traditional concept of the city sidewalk paralleling the city street as the only planned provision for pedestrian traffic. Instead, the emphasis is placed on pedestrianways that are uniquely designed and located to provide a greater variety of opportunities than in the past.

Pedestrianways can be categorized into three design groups: those merged with the street system, i.e., conventional sidewalks; pedestrian overcrossings or underpasses or similar structural separations; and those pedestrianways separated entirely from the street system and often a part of an equestrian-bicycle trail system. The latter two design groups are continuing to receive more emphasis by the City of Sacramento.

Future requirements. Extensive development of both utilitarian and recreational pedestrian routes should take place throughout urban Sacramento within the next 20 years. A comprehensive system of pedestrianways throughout the City, however, will require increased use of design innovations, land planning techniques, financing and public support. Planned or existing trail systems such as those along the American and Sacramento Rivers will meet some of the recreation oriented pedestrian needs. On a limited basis, condominium developments have also made extensive use of pedestrianways. Pedestrianways, however, should be expanded in scope to include walkway-open spaces connecting residential neighborhoods with shopping complexes and other community facilities.

Extension of both utilitarian and recreational pedestrianways should also be promoted beneath existing power transmission lines, adjacent to natural or man-made water courses, in shopping center malls, and in major commercial and business areas. A system of pedestrianways within superblocks in the residential portions of the Old City should also be explored as a means of improving the safety of pedestrian travel.

Pedestrianway policies. Policies relating to pedestrianways are as follows:

- 1 - Pedestrianways shall be recognized as an integral but separate transportation system that merits promotion in existing and future land development. In portions of the City where separate systems are not feasible, but where sidewalks and gutters are non-existent, priority for their construction should be emphasized.
- 2 - Promote and utilize acceptable new design and location criteria for pedestrianways which enhance their use and safety throughout the City.
- 3 - Actively support appropriate local and state legislation which provides for an increased level of safety and convenience for pedestrianway users.
- 4 - As part of the Central City (Old City) Study, give consideration to promoting pedestrianways in the residential portions by closure of streets to form superblocks, and by greater utilization of the newly created inner block areas for pedestrian travel.

BIKEWAYS

Importance of bikeways. Bikeways in Sacramento are receiving increased emphasis as a means of transportation within the overall circulation system. Not only is the bikeway being used for recreation purposes, but for commuting between place of work and residence. This is largely due to a new public awareness that the bicycle provides a means for achieving physical fitness, is relatively inexpensive to maintain for commuting purposes, and is pollution free.

Sacramento has responded to this important phase of transportation planning in a number of ways. Cooperation with Sacramento County officials has led to completion of the American River Parkway Plan within the City portion, an integral feature of which is a ten mile stretch of the Sacramento River Bikeway. Completion of the Core City Bikeway which extends along a 6.5 mile stretch from Sacramento State College to Miller Park via the State Capitol now provides City residents with a utilitarian type bikeway, the first of what will probably become many

throughout the Sacramento area. Further progress has been made with adoption of one from several bikeway-parkway segments under study extending along the Sacramento River.

Future requirements. The need for additional utilitarian bikeways to serve the urban area is apparent. The City in cooperation with other public agencies and interested citizen groups is studying alternative routes for both utilitarian and recreational bikeways. The need for a more comprehensive system of utilitarian bikeways which would link residential neighborhoods with community facilities and places of work should be considered. This should include consideration of a comprehensive plan to provide bicycle protection facilities at parking nodes adjacent to bus routes and major shopping centers, especially in suburban areas. There is also a need for recreational bikeways which meander along both rivers and other natural and man-made water courses, beneath power transmission lines and similar areas affording multi-purpose benefits. Because planning for both types of bikeways within the urban area is relatively new, part of the task ahead will be to explore sources of funding new facilities, and further formulate and refine bikeway design and routing standards.

Bikeways Master Plan. Since 1973 the City has participated in a County program to develop a comprehensive Bikeways Master Plan serving all portions of the County. The project is to be completed later this year. The Project Team and Task Force will be recommending specific routes, priorities for completion, and implementation programs including safety and security measures.

Bikeway policies. Policies relating to bikeways are as follows:

- 1 - Prepare and implement a comprehensive bikeway plan for the City which serves both utilitarian and recreational needs of the residents. This plan should be in harmony with the Countrywide Bikeways Master Plan. Particular attention should be given to central city bikeways and to bicycle protection facilities at parking nodes along bus routes and in major shopping centers.
- 2 - Utilize where feasible existing programs for funding new bikeways, including the present bike licensing program, and explore new avenues of financing needed facilities.
- 3 - Promote to the greatest degree possible the separation of bikeways from the street system in order to provide even greater safety benefits to bicyclists.
- 4 - Continue to participate in and support the efforts of the Bikeway Task Force in preparing a Bikeways Master Plan for all of Sacramento County.

AIRPORTS

General Description. Within the greater Sacramento area there is a comprehensive system of air transportation facilities. This system includes two military air bases, an airport served by a number of commercial airlines, and several general aviation fields.

The largest of the civilian air facilities is Sacramento Metropolitan Airport located eleven miles northwest of downtown Sacramento in the Natomas area. This airport functions as the major air carrier facility for the region and is served by five certified airlines. Executive Airport, located four miles south of downtown Sacramento, is the largest of the general aviation facilities and accommodates approximately 400 private planes. Metropolitan Airport is owned and operated by Sacramento County while Executive Airport is operated by Sacramento County under lease agreement with the City.

Natomas Airport, formerly known as Branstetter Field, is midway between downtown Sacramento and Metropolitan Airport in the yet to be urbanized Natomas area. This privately operated field provides both flying instruction and agricultural aviation services. Franklin Field which is owned and operated by the County and Phoenix Field which is privately owned are located somewhat distant from Sacramento itself. These two facilities provide additionally needed general aviation services for the greater Sacramento area.

McClellan Air Force Base on the City's northeasterly limits serves primarily as a logistics command and aircraft modification center. Mather Air Force Base to the east of Sacramento functions principally as a navigation training center.

Future requirements. Sacramento Metropolitan Airport has ample room for expansion of runways and buildings to meet the future commercial need of increasing passengers and air cargo if the airport serves only the Sacramento trade area. In line with recent discussion of expanded air transportation facilities for the Bay Area will be the need to closely evaluate this facility's regional role in order that subsequent planning can be guided accordingly. Depending upon the magnitude of Metropolitan's role on a regional basis, there could be a requirement for additional land. It is therefore recommended that the design team presently studying the airport's future development consider its competitive position regionally and make necessary adjustments in the Metropolitan Airport Master Plan.

Executive Airport will continue to serve as the region's major general aviation base and service center for corporate, executive and private aircraft, and as an auxilliary to other air facilities locally. Natomas Airport will continue to function

in its present status for the immediate future.

Airport policies. Policies relating to airports are as follows:

- 1 - Promote and encourage orderly and timely development of both commercial and general aviation facilities.
- 2 - Provide comprehensive ground transportation systems that complement air transportation facilities.
- 3 - Support policies that enhance the role of Sacramento Metropolitan Airport in the Northern California area.
- 4 - Coordinate with the Sacramento Regional Airport Land Use Commission in the development of policies which ensure a satisfactory relationship between private land uses and the safe, efficient use of airports inside the City and County.

RAILROADS

General description. Sacramento has long been a major center of railroad activity, the western terminus of the first transcontinental railroad having been established here.

The metropolitan area is served by two Class 1 railroads, the Southern Pacific Company and the Western Pacific Company. Southern Pacific's railroad yards on the northerly edge of downtown Sacramento has historically been the focal point for transcontinental traffic and a fabrication center for locomotives and railroad cars. The present function, however, has shifted to servicing of railroad cars and as a marshalling yard for railroad freight activities. Amtrak, the national passenger railroad may have a significant effect on this facility since Sacramento is on one of the main east-west routes across the United States. Western Pacific's railroad yards to the south of downtown Sacramento serve as a minor marshalling and service facility. Over the years, a number of detailed studies have been completed which deal with the modification and/or relocation of the frequently used trackage between 19th and 20th Streets and the spur trackage located along R Street in the heavily travelled Old City. Study conclusions and rectification costs have so far negated further action.

Both the Southern Pacific and Western Pacific serve rail

oriented industries throughout the City with drill tracks. Periodic evaluation of drill trackage and industrial land use needs is an important part of the planning process. Newly developed industrial complexes may require extension of these facilities and unused trackage may require abandonment and conversion to more useful purposes.

Railroad policies. Policies relating to railroads are as follows:

- 1 - Encourage retention and promotion of transcontinental railroad passenger service to and through the Sacramento area.
- 2 - Encourage retention and addition of railroad trackage necessary to promote and retain industrial land uses.
- 3 - Where feasible, eliminate unneeded railroad trackage and convert the unused rights-of-way to appropriate land uses.

DEEP WATER PORT

Importance and general description. The Port of Sacramento is an important link in greater Sacramento's total transportation system. Although located in neighboring Yolo County, this internationally competitive facility provides jobs and related services that directly benefit the City of Sacramento. Containerized products, agricultural goods and other heavy bulk cargo are shipped throughout the world from the port and annual business continues to expand steadily. At the present time Port authorities indicate that deepening of the 30 foot channel is currently under study since the port must be capable of accommodating larger ships if it is to remain competitive in the world market.

Deep water port policies. Policies relating to the deep water port are as follows:

- 1 - Promote the Port of Sacramento in its expansion efforts, consistent with other policies of the General Plan.
- 2 - Promote the Port of Sacramento as a major component of the local industry base and as an essential public service.

PUBLIC TRANSIT

Background. Public transit via the conventional bus has long been the primary mode of mass transportation in the greater Sacramento area, and is expected to continue well into the foreseeable future. A continued policy by the City of supporting a strong employment base within the Central Business District will tend to increase bus usage since white collar

workers with jobs in the CBD are being provided shorter headway (5 to 10 minutes waiting time) and because fuel costs for operating private automobiles continue to increase rapidly. Studies by the Sacramento Regional Area Planning Commission and its consultants have concluded that rail rapid transit, for example the Bay Area Rapid Transit (BART) system, is not economically feasible in this region in the near future. Nevertheless, continuing study of this important aspect of transportation will be required if the growing metropolitan area is to have a more diversified transportation system, particularly one less dependent on the automobile as the primary mover of people.

The Sacramento Regional Transit District. The Sacramento Regional Transit District, known as "Regional Transit" or "RT," assumed operation of transit service in the Sacramento Area on April 1, 1973. Prior to that date, bus service was provided by the Sacramento Transit Authority (STA), an agency of the City of Sacramento. The availability of new sources of funds and a new organizational structure has made possible the implementation of an aggressive program to upgrade transit service and greatly expand it beyond the City limits. Among the service improvements are: new and extended routes, more frequent service, faster travel times through use of freeway express routes, new air-conditioned buses, and waiting stations and shelters. Implementation of the \$.25 flat fee for rides, the establishment of parking lots on the urban fringe and at major regional shopping centers, and extensive promotion campaigns have all contributed to furthering RT usage.

Environmental pollution, traffic congestion, and sharply increasing operating costs related to the private automobile will make public transit a more important component of the transportation system. Policies reflecting this fact are being implemented presently, and should be strengthened in the future to further encourage and facilitate transit service.

Future requirements. Further study of mass transportation requirements and opportunities is necessary. For example, the results of the Sacramento-Stockton-San Francisco Bay Area Corridor Study could have an important impact on local Sacramento transit planning. In any event, options should be kept open to consider rail transit in the long-term future if growth in population size and density should warrant it.

Within the foreseeable future other studies or refinements to the present public transit system are needed. Results of a special study at McClellan Air Force Base on the establishment of a bus/carpool computer matching system will have to be assessed for application throughout the greater Sacramento area. Dial-a-bus and subscription bus service will also have to be carefully examined. Residents and users of the Old City

and Central Business District should be particularly singled out for study of their public transit needs. The relatively high number of handicapped and aged residing within the area make this type of study important.

Public transit policies. Policies relating to public transit are as follows:

- 1 - Support and encourage improved regional bus service in the Sacramento area.
- 2 - Support continuing transportation studies to refine and improve transit plans.
- 3 - Consider the impact on transit usage of land use, subdivision, and parking policies. Where possible, design and locate facilities in such a way as to encourage people to use transit.
- 4 - Give special attention within the Central City (Old City) Study to ways of encouraging public transit use and meeting the public transit needs of the Old City residents and Central Business District users.
- 5 - Promote studies which lead to the improvement of interurban travel by modes other than the automobile.

PUBLIC FACILITIES AND SERVICES ELEMENT

SECTION FOUR

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

PUBLIC FACILITIES AND SERVICES ELEMENT

GOALS

- 1 - Provide necessary public facilities and services.
- 2 - Utilize the location, characteristics and timing of public facility development as a tool in achieving desired urban growth characteristics and proper land use patterns.
- 3 - Achieve economy and efficiency in the provision of services and facilities.
- 4 - Design public facilities in such a manner that they enhance the appearance of the communities in which they are located.
- 5 - Incorporate energy-saving principles in the design of public facilities whenever possible.

BACKGROUND

The Public Facilities and Services Element of the 1974 General Plan for Sacramento sets forth broad goals, and specific policies and programs for parks, schools, fire stations, libraries, medical and health care, solid and liquid waste disposal, and water supply facilities, and police services in Sacramento.

In the greater Sacramento area the existing pattern of these facilities and services is affected by the multiplicity of separate jurisdictions providing them. For example, in addition to the comprehensive system of municipal services provided by the City, there are numerous single purpose special districts and combined governmental agencies organized to furnish a variety of municipal services from fire protection to cemetery maintenance. The General Plan does not contemplate the full elimination of separate jurisdictions within the near future; however, it does attempt to subordinate jurisdictional boundaries wherever possible to the most logical placement of facilities to best serve the total community.

In planning for comprehensive public facilities and services in Sacramento, three general concerns are being given increasing emphasis. The first concern is that any expansion of public facilities includes strong measures for protecting and enhancing the local environment. The second concern is that development of these facilities must be fully coordinated with all affected public and private sectors in order to avoid expensive duplication and to assure a balance among needs, services and costs. The third concern is that extension of public facilities and services to developing areas of the City should be permitted only where new urban growth is desirable in terms of benefiting the entire City. These concerns are continually being refined

to provide Sacramento residents with the best possible public facility and service systems.

RECREATION AND PARKS

Importance. Increasing leisure time for recreation pursuits and increasing emphasis on a strong relationship of parks and open spaces with environmental quality continue to make this aspect of public facilities and services planning very important to the City. The 1965 General Plan for Sacramento sums up what continues to be applicable today.

Public recreation facilities, parks, and open spaces are not a luxury. Rather, these areas are an important part of the physical structure of any urban area. The provisions of adequate facilities of this nature is a vital element in the General Plan for the City, and an important community responsibility.

Recreation and Parks Plan. The adopted 1968 Recreation and Parks Plan for Sacramento and subsequent precise plans for the American River Parkway, the Sacramento River Parkway, and each community within the City serve as the basis for recommendations concerning recreation land uses in the present Plan. The recreation-park-open space system is developed to meet three basic criteria: first, there must be sufficient land developed for this purpose; second, the facilities must be properly distributed throughout the area; and third, there must be facilities to serve the different recreation requirements of all age groups and their activities.

Park standards. There are many standards utilized in varying degrees to determine the desirable acreage and function devoted to recreation use within an urban area. It is not the intent of this General Plan to compare Sacramento with any such standards since such standards cannot apply uniformly to every city nor to all neighborhoods in the same city. Acreage alone does not assure a well-balanced system, and the function of a facility does not apply uniformly to all intended users.

Certain general standards, nevertheless, do apply to a park-open space system for active and passive recreational use:

- 1 - Land for active recreation is intended to be easily accessible to as many potential users as possible and so situated as to avoid unnecessary duplication of services.
- 2 - Each active recreation facility is intended to be centrally located within its service area.
- 3 - Each active and passive recreation facility is intended to be attractive as well as efficient.

- 4 - Equipment and programs in active recreation areas are intended to meet the needs of all age groups, from the small tot lot for youngsters to the senior citizen's center for elderly people.
- 5 - Passive recreation areas such as trail systems along waterways and nature preserves should be protected from use as active recreation areas, and enhanced where appropriate with significant natural vegetation.

Future requirements. Based upon the adopted 1968 Recreation and Parks Plan and subsequent acquisition programs, the City of Sacramento presently owns 2,450 acres of park land, of which 18 percent is undeveloped. In addition, the 1968 Plan designates significant, yet to be acquired, land in future urbanized areas for active and passive recreation use.

Programming recreational facility growth in relation to future acquisitions and improvements is accomplished by the City through several means. Specific priorities are determined annually by the City Council and the Recreation and Parks Department. These are based on the urgency of need prevailing economic and government budget restraints, and cost estimates. These priorities are made a part of the City's overall Capital Improvement Program and are funded accordingly. Funds are derived from construction of residential dwelling units in the City and from various federal and state sources which require matching local funds.

Recreation and parks policies. The following recreation and parks policies of the Open Space Element were adopted by the City Council in June of 1973 and are recommended for inclusion herein:

- 1 - Emphasize the acquisition and improvement of recreation facilities which link nodal areas such as community or neighborhood parks with linear areas such as trail systems or greenbelts.
- 2 - Review and update the Recreation and Park Plan for Sacramento...such review should include but not be limited to
 - a) updating current resources,
 - b) updating acquisition and improvement priorities,
 - c) studying waterways for establishment of trail systems, and protection and enhancement of significant natural vegetation, and
 - d) including citizens from each of the City's planning communities in the process of determining current and future recreation and park needs.
- 3 - Continue using residential development fees for providing both nodal and linear recreation areas.

- 4 - Continue practice of providing outdoor recreation facilities on or adjacent to public schools.
- 5 - Develop standards for providing "mini-parks" as opposed to more conventional neighborhood or community parks in the more highly urbanized sections of the City.
- 6 - Ensure adequate public access to the American and Sacramento Rivers in newly developing areas through continued administration of dedication or in lieu fee provisions of the subdivision ordinance.
- 7 - Study new programs and incentives that promote trail systems through subdivisions which are separate from the vehicular circulations system.
- 8 - Continue to develop bikeway systems in the urbanized sections of the City, and study the feasibility of expanding the system to include connections between major shopping and employment centers and outlying residential area.
- 9 - Complete the Sacramento River Parkway Study and begin implementation as quickly as possible.
- 10 - Work closely with County and regional agencies in developing a comprehensive system of trails both inside and outside the City.
- 11 - Make optimum use of municipal service corridors such as drainage courses and power transmission easements in the City by providing trails for pedestrians, bicycles and equestrians along their length.
- 12 - Continue to study the feasibility of securing an open space-linear greenbelt along the Old Sacramento Northern Railroad right-of-way extending from the northern City limits to the American River.
- 13 - Concurrent with specific planning of linear recreation areas, take appropriate measures to safeguard against problems presently associated with public access to drainageways.

SCHOOLS

Background. The City of Sacramento embodies a number of school districts, each with facility planning requirements unique to its own needs. There are all or portions of four public elementary school districts, three kindergarten through high school unified districts, one high school district, one community college district, and one state university inside the City limits. Numerous parochial and specialized schools also provide residents with educational opportunities.

School site planning in Sacramento has traditionally involved close coordination and cooperation between school districts and the City Planning Department. This is largely because land use patterns in a given area directly influence site location and the number of students that can be anticipated.

Location criteria. With the exception of some older schools in the more established portions of Sacramento such as the Old City, most public schools shown on the overall General Plan map are located using the following criteria:

- 1 - Elementary schools are located on sites that are safely and conveniently accessible, and free from heavy traffic, excessive noise, and incompatible land uses.
- 2 - Schools beyond the elementary level are located on sites adjacent to major streets.
- 3 - All school sites are centrally located with respect to service areas, and with respect to the elimination of service area duplication with adjacent districts wherever possible.

Closely related to these criteria are those for local parks. Long standing agreements between individual school districts and the City Council have resulted in park facilities and recreation programs immediately adjacent to many of the schools throughout the City. This practice results in better use of the recreation facilities and overall school-park site area.

Field Act schools. Twenty-one public elementary schools within the inner city have fallen under provisions of the 1933 Field Act because of their age and construction. To meet acceptable standards of earthquake safety by the 1975 deadline, the Sacramento City Unified School District approved a plan in February of 1974. The plan will eliminate 10 elementary schools within the same general area. This will necessitate redistricting of attendance boundaries, and study of the reuse of properties no longer required for educational purposes. The City of Sacramento will be working closely with SCUSD officials regarding the reuse of these sites.

Future requirements. Site location criteria embodied in this plan follow as a general rule the traditional concepts for planning school facilities. A number of new concepts, however, may rapidly change the entire complexion of school design, location and function in the Sacramento area. At this point in time, these merit identification and will be incorporated in future changes to the General Plan should they gain public acceptance. Briefly, the three major areas which could change the present school pattern are:

- 1 - Utilizing schools for education throughout the entire year instead of the traditional nine-month period tends to reduce

the number of required school sites which are needed. At present, there is only limited public acceptance to proposed year-round school programs in local districts.

- 2 - Financing new education facilities or improvements to existing schools becomes increasingly more difficult. The result is not only a search for new financing methods, but for ways of reducing the number of new school sites.
- 3 - Declining enrollment experienced in some local schools due to demographic changes and the general trend of decreasing family size is resulting in reduced enrollment at these facilities. This situation is expected to continue at least through this decade, resulting in the need for periodic evaluation of service areas and facilities utilization.

School policies. The following school policies are recommended for adoption:

- 1 - Continue to work closely with school districts in all facets of school site and facilities planning.
- 2 - Work with the various districts in solving the more pressing contemporary problems that affect the location, design and type of schools needed to best serve the community; and incorporate these solutions in the General Plan.
- 3 - Explore new ways of using school facilities for "non-school activities" during non-school hours and on a year-round basis.
- 4 - Promote the maximum use of new facilities by incorporating the school-park concept in site planning.
- 5 - Undertake a comprehensive study of those elementary school properties which are to be eliminated because of the 1933 Field Act and recommend suitable new uses for these properties.

POLICE SERVICES

Existing situation. In addition to normal police protection services, the City's Police Department carries out several functions which are directly affected by Sacramento's physical development. Traffic safety and accident prevention programs administered by the Department include a program of coordination with the Engineering Department in reviewing proposals for street improvements, lighting and traffic controls. The Planning Department submits all tentative subdivision maps and other major development proposals to the Police Department where these are reviewed and commented on for special policing problems. Suggested improvements in design are then considered prior to the project's approval and construction.

Future requirements. While most large public and private projects are now reviewed by the Police Department, no specific design criteria have been formally established to facilitate the review process. Examples of design criteria that could be utilized in reducing the need for police-related services include establishing criteria for residential development which backs up to public or semi-public easements (often locations encouraging vandalism and theft in abutting properties); design features for park/school combinations that permit improved observation by mobile police patrols; street lighting criteria in existing areas of high crime frequency; and standards for private drives, streets, and alleyways that would result in improved police access and reduced patrolling problems.

Police services policies. The following general policy for police services is recommended for adoption:

- 1 - Direct the appropriate City departments to develop specific design criteria to be utilized when evaluating all physical development proposals, the primary intent of such criteria being to reduce potential policing problems and to improve police protection and related services to those areas.

FIRE STATIONS

Importance. The effectiveness of a community's fire protection services are determined by a number of important factors. Water supply, facility location and distribution, equipment and manpower are among these. For purposes of the General Plan, the location and distribution of each fire station is particularly critical since surrounding land uses and circulation patterns directly affect the quality of fire protection services.

Fire Stations Plan. The Fire Stations Plan shown on 4-8 is a composite of City facilities as recommended for implementation in the 1971 Master Plan for Improved Fire Protection and as amended and adopted by the City Council August 16, 1973. County facilities which have been planned to service the various fire protection districts are also included. The entire system within the City enlarges somewhat upon the existing distribution pattern, and is based upon the likely five year demand for fire protection services generated as a result of new urban land use and circulation patterns. The plan does not, therefore, indicate long range fire station sites needed sometime after 1979.

The City presently has mutual aid agreements with adjacent districts, thus increasing fire protection coverage inside and outside its jurisdiction where necessary. Cooperation of this nature is often taken into consideration in locating new facilities near the City limits.

Fire station policies. The following fire station policies are recommended for adoption:

- 1 - Continue to support all efforts directed at providing the best fire protection services for the least cost.
- 2 - Ensure that adequate water supplies are available for fire-fighting equipment in newly developing areas.

FIRE STATIONS PLAN

LEGEND

- EXISTING
- EXISTING, TO BE RELOCATED
- PROPOSED
- PROPOSED, FURTHER STUDY REQUIRED



SACRAMENTO CITY PLANNING COMMISSION

SCALE: 1" = 8000'

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- 3 - Work with the various fire protection districts bordering the City in establishing centralized communications and fire fighter training facilities.
- 4 - Promote greater coordination of land use development proposals with the Fire Department in order to insure adequate on-site fire protection provisions.

LIBRARIES

Importance. The importance of a modern library system to a community cannot be minimized. This is an integral part of the community's cultural, social, and academic activities. It is as important to the community as its school system, park and recreation program, or any other public facility or service system.

Library Facilities Plan. The Library Facilities Plan shown on page 4-10 is intended to reflect the pattern of existing facilities and those suggested for future acquisition and development. Suggested facilities are recommended for further study and have been indicated because of strong deficiencies in present facilities serving a given area. Resolution of proposed libraries and others to serve long term needs of the City and County has been identified in a master plan for physical development of libraries, the County portion of which was considered and approved by the Board of Supervisors December 10, 1973.

Library standards. The Plan includes guidelines for evaluating library sites, standards applicable to circulation and values per capita, and the basis for regional vs. community and/or local branch libraries in library development and their inter-relationships. Some of those standards of service include:

- 1 - Branch size large enough to adequately serve a community of 20,000-50,000.
- 2 - Feed a service area with a two mile radius.
- 3 - Have a collection of library materials equivalent to two books per service area resident plus magazines, pamphlets and phono disks.
- 4 - Employ one full-time staff member per 25,000 volumes of annual circulation.

Some of those standards for facilities include:

- 1 - 400 square feet per thousand population served with an optimum size of 12,000 square feet.
- 2 - Multi-purpose room of 1,500-2,000 square feet for use by the target community for "non-library events" as well as for regular library programs and exhibits.
- 3 - Seating capacity at reading tables should total 75-85 with three additional seats for every 1,000 individuals

LIBRARY FACILITIES PLAN

LEGEND

- EXISTING
- EXISTING, TO BE RELOCATED
- PROPOSED
- PROPOSED, FURTHER STUDY REQUIRED



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over the proposed 25,000 service population.

Library policies. The following general policy for library facilities is recommended for adoption:

- 1 - Encourage and promote continuity in the development of long-range plans for joint City-County library facilities and services. Such planning should reflect the needs of all of the public served in the consolidated City-County system.

MEDICAL AND HEALTH CARE FACILITIES

Medical and health care facilities referred to in this section are grouped under the general term "medical facilities" unless otherwise stated; and include hospitals, medical and dental clinics, public health centers, convalescent and nursing homes, and similar types of land uses.

Importance. Medical facilities are important to any community since these provide required public services for the health and well-being of local residents. Improperly planned, these facilities can fail to provide essential services or can result in unnecessary and costly service duplications. This strongly suggests the importance of planning a balanced and comprehensive system of medical facilities.

Present plans. The principal agencies working toward a comprehensive plan for medical facilities in the Sacramento area are the Golden Empire Regional Comprehensive Health Council (GERCHC) and its local subdivision, the Sacramento County Health Council. These two public agencies have considerable responsibility in the coordination of health facilities planning for the County. In this regard, the two agencies work closely with the Sacramento Medical Society, the Medical and Dental Care Foundations, the Sacramento County Health Agency, the U.C. Davis School of Medicine, and other health related agencies such as the Sacramento Neighborhood Health Service Corporation. These groups provide the main force for health services in the Sacramento area, and have been attempting to maintain a minimum of health services and facilities duplication.

The Sacramento County Health Agency is presently responsible for the operation of mental health centers, satellite clinics and neighborhood health centers throughout the County. The most recently opened neighborhood health center is the Capital Health Center in the Washington area of the Old City. The health agency in concert with other health related organizations will continue to plan for medically underserved areas of the community.

GERCHC has prepared a plan identifying goals and policies for comprehensive health services and facilities in the greater

Sacramento area. This plan serves as a basis for preparing a refined medical plan for the City on an annual basis. Detailed provisions for adequate overall, community-wide emergency care facilities are an important part of the refined plans.

Recognizing the responsibilities of the various agencies, the City of Sacramento has restricted its role in medical facilities planning to administering regulatory controls for individual land uses, and to coordinating with groups which possess expertise in comprehensive medical and health care planning.

Medical and health care facility policies. The following medical and health care facility policies are recommended for adoption:

- 1 - Continue to support efforts by other agencies which are directed at consolidating medical and health care planning efforts.
- 2 - Support the goals and policies of the Golden Empire Regional Comprehensive Health Council for comprehensive medical facilities plans for the greater Sacramento area.
- 3 - Where possible, encourage all new health care facilities and expansion of existing facilities to avoid expensive duplication of services.
- 4 - Cooperate with the County Health Agency in expanding the plan for providing health services to areas currently underserved.
- 5 - Continue to have GERCHC review all incoming applications for new or expanded medical facilities.

SOLID AND LIQUID WASTE DISPOSAL FACILITIES

Scope. This section of the Public Facilities and Services Element deals primarily with the physical facility plans for solid and liquid waste disposal; and does not directly concern itself with related environmental issues of water quality and pollution from solid and liquid wastes. The latter issues are discussed in detail in the Conservation Element of the General Plan.

Importance. Solid and liquid waste disposal planning is an important factor in an area such as Sacramento where increasing population growth and urbanization is accompanied by growing volumes of refuse and wastes from a variety of sources. Modern disposal systems must keep pace with these needs, reflect the latest demonstrated technological advancements, be economical to operate and maintain, and cause a minimum of negative impact upon the total environment. By their very nature, these disposal systems in the Sacramento metropolitan area must eventually be considered in their total urban context and not in their separate jurisdictional context. The City and County of Sacramento

recognize this and are working toward a consolidated system of solid and liquid waste facilities that will best serve all of the Sacramento metropolitan area.

LIQUID WASTE DISPOSAL

Existing situation. At the present time, Sacramento has a combined storm and sanitary sewer system which extends throughout approximately forty percent of the City. In addition to this system are several others. There is the Natomas Sanitation District, County Sanitation District 2, Arden Sanitary District and the County Central Sanitation District. Existing plant facilities for treating liquid waste are shown on the Solid and Liquid Waste Disposal Plan on page 4-14. Many of these are indicated for closure assuming construction of a new centralized facility immediately south of the City limits. Currently, the City Main Waste Water Treatment Plant on Fruitridge Road carries the biggest load, and discharges the greatest quantity of treated effluents into the Sacramento River.

Future needs. On August 25, 1972 the Central Valley Regional Water Quality Control Board adopted new water quality guidelines and waste discharge requirements. These regulations necessitated a complete re-evaluation of current sewage treatment measures for the Main Waste Water Treatment Plant and others throughout the County. Two basic criteria of the CVRWQCB had to be met in upgrading treatment facilities; first, there had to be an alternative to the disposal of treated effluents presently discharged into the American River, and second, the consolidation of sewage treatment operations into centralized plants was necessary.

The Sacramento Regional Waste Water Management Plan which was completed in March of 1974 and which was acceptable to CVRWQCB recommends consolidation of most sanitary sewage collection and treatment facilities in metropolitan Sacramento. Under the direction of the County Department of Public Works, one central treatment plant is proposed to be constructed to replace 22 existing plants now servicing the City and large unincorporated area. In addition, discussion is also underway regarding elimination of the Elk Grove and West Sacramento Sanitary District facilities by consolidation with the greatly expanded Central Sanitation District. Implementation of the Regional Waste Water Management Plan, including the construction of long interceptor sewers to tie in outlying service areas, is estimated to cost \$240 million.

The Central Treatment plant is scheduled for operation late in 1978 or early in 1979. The actual facility will provide tertiary treatment of sanitary sewage collected at that point. Only the Main Waste Water Treatment Plant will be retained to process storm water during excessive run-off periods. The timing for phasing-out of the existing facilities and construction of the new interceptor network coincides with that for the Central Treatment Plant.

SOLID AND LIQUID WASTE DISPOSAL PLAN

LEGEND

SOLID WASTE DISPOSAL FACILITIES

- TRANSFER STATION
- EXISTING SANITARY LANDFILL SITE

LIQUID WASTE DISPOSAL TREATMENT FACILITIES

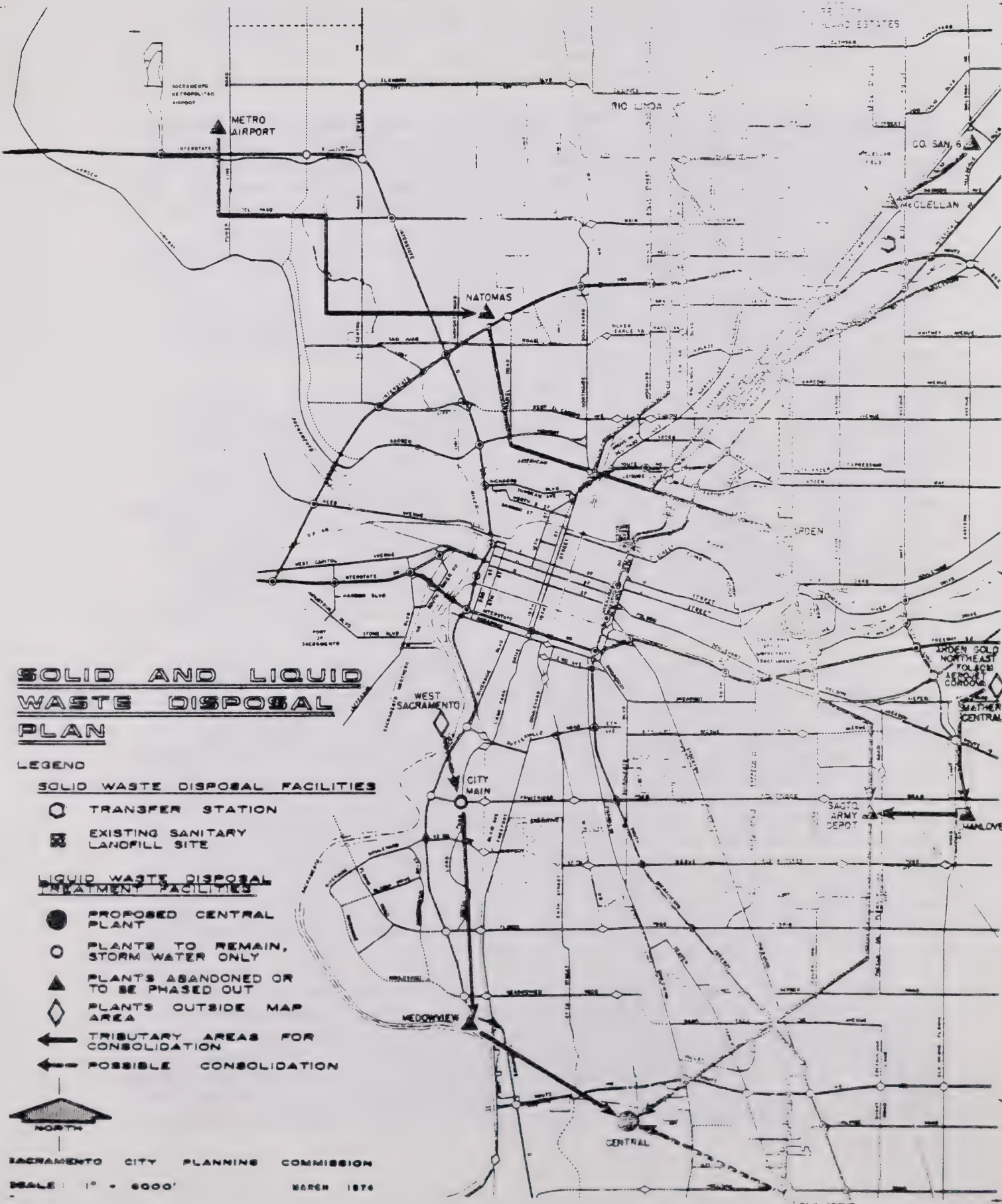
- PROPOSED CENTRAL PLANT
- PLANTS TO REMAIN, STORM WATER ONLY
- ▲ PLANTS ABANDONED OR TO BE PHASED OUT
- ◇ PLANTS OUTSIDE MAP AREA
- ← TRIBUTARY AREAS FOR CONSOLIDATION
- POSSIBLE CONSOLIDATION



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While the Central Treatment Plant will be located within approximately 1,250 acres of publicly owned property immediately south of the City limits, land use planning surrounding this facility will require special attention. Future expansion of the operations will have to be evaluated also for its impact upon neighboring uses. To insure maximum protection from noxious odors, the City and County will be closely reviewing all future development adjacent to this facility.

Liquid waste disposal policies. The following liquid waste disposal policies are recommended for adoption:

- 1 - Closely coordinate all planning activities with the County Department of Public Works which are in the vicinity of the new Central Treatment Plant property in order to minimize any adverse impact from that activity.
- 2 - Continue to provide sewers to all newly developed sections of the City, and encourage extension of sewers to existing developed areas where this service is lacking.
- 3 - Continue to support efforts to consolidate sewage services within the Sacramento metropolitan area and provide for the phased development of interconnecting sewage transport networks.
- 4 - Promote the recycling of sewage wastes, where proved to be the most practical use of this resource, by supporting liquid waste management techniques such as the use of methane gas as a source of energy, and the production of agricultural nitrogen for fertilizer.
- 5 - Gradually phase out sewage treatment operations at the Meadowview Waste Water Treatment Plant and the Natomas Sewage Treatment Plant, and limit the operation of the Main Waste Water Treatment Plant to high runoff periods.
- 6 - Continue to cooperate with other agencies in solving mutual liquid waste disposal problems.

SOLID WASTE DISPOSAL

Existing situation. Refuse collection in Sacramento is municipally operated and is financed directly by user fees. All collected solid waste is transported to the City's Class Two sanitary landfill site at A and 28th Streets. While this site has been useful for many years, it unfortunately has a short life expectancy of about ten years remaining. Upon termination of its usefulness, the site is planned for conversion to a park. Refuse will then have to be redirected to a new, less centrally located site, probably in the County. Neither the City nor County currently have a Class One sanitary landfill site capable of safely accommodating toxic industrial or agricultural wastes.

Future needs. Present tentative plans call for the transfer of City refuse to the County's Grant Line - Kiefer site once the A and 28th Streets operation ceases. The County site would then have a remaining life expectancy of about fifteen years. A transfer facility somewhere within the City would probably be needed to eliminate the expensive practice of hauling waste long distances using the present method and practices. The County presently has such a facility in operation at McClellan Air Force Base to serve the northern portion of the County, and proposes a second transfer facility south of the City to serve the greater Elk Grove area. Because of restricted access and potential conflict of land use activities, a transfer facility on the City's A and 28th Streets site does not appear feasible. Thus another site would require study.

As a result of recently issued State guidelines, the Solid Waste Management Board of the County Department of Public Works has been directed to prepare a comprehensive plan for the management of solid wastes within all of Sacramento County. A preliminary of the plan must be submitted to the State Solid Waste Management Board for approval by January 1975. The plan will address itself to all aspects of solid waste management, including those previously discussed herein which directly affect the City's operations. Long range recommendations will include measures to maximize the recovery of useable materials, to maximize land reclamation, and to minimize environmental impact where land disposal methods are utilized. The City will comply with all State requirements for developing a comprehensive plan for solid waste management.

Solid waste disposal policies. The following solid waste disposal policies are recommended for adoption:

- 1 - Continue present sanitary landfill operations at the present 28th and A Streets site.
- 2 - Refine plans to convert the 28th and A Streets site to a recreation facility upon completion of landfill operations.
- 3 - Explore, in conjunction with the County, long-range solutions to solid waste management that emphasize ecological and environmental protection.
- 4 - Encourage and support efforts for the establishment of a refuse disposal site for toxic industrial or agricultural waste materials.
- 5 - Develop and implement programs to recycle solid wastes.
- 6 - Assist the County Solid Waste Management Board wherever possible in its effort to develop a comprehensive plan for solid waste management.

- 7 - Encourage resource conservation in all solid waste disposal programs.
- 8 - Study, in cooperation with the County, the feasibility of using solid wastes as an energy source (fuel).

WATER SUPPLY FACILITIES

Scope. This section of the Public Facilities and Services Element deals with the physical network that provides water for use within the City of Sacramento; and does not concern itself directly with the quality of water. This aspect is discussed in detail in the Conservation Element of the General Plan.

Importance. Planning water supply facilities is an important municipal function in a growing urban complex such as ours. Not only must filtration and pumping plants, and their distribution systems, provide adequate amounts of water for present consumption, but their expansion must be closely correlated with population trends and forecasted subdivision activities.

Existing situation. The City of Sacramento presently has water supply facilities that service all the area south of the American River, and the Campus Commons/East Ranch area north of the American River. The remaining City area north of the River derives its water supply from private wells. The Water and Sewer Division of the Engineering Department estimates that approximately 18 percent of the total water needs of the entire City are provided by these wells.

Of the municipal water supply facilities, the filtration plants near California State University and near the Southern Pacific railroad yards provide most of the water for residential, commercial and industrial consumption. A third, smaller plant located at Riverside Boulevard and 11th Avenue supplements the other distribution sources. All three plant facilities and their water collection and distribution systems are believed adequate to serve present and near future demands for water within their respective areas.

Future requirements. Long-range requirements for municipally supplied water are dependent upon the direction and magnitude of urban growth, and the availability of ground water north of the American River. During the past year, an engineering firm has been updating the master plan of the City's water development and has come to the following conclusions:

- 1 - At the present rate of growth, there will be a water deficiency of about 10 percent during peak demand periods by the year 1978.
- 2 - The wells serving the area north of the American River should be phased out due to the overdraft of the underground which is taking place.

- 3 - Unless the Sacramento River Water Filtration Plant is expanded from its present capacity of 70 mgd to 150 mgd by 1978, it is likely the City will lose water rights in this additional capacity when these rights are reviewed by the State Water Quality Control Board July 1, 1978. Existing rights on the Sacramento River are for 225 second feet of diversion of which about one-half have been perfected by use.

In view of the above situation, it will be recommended in the Water Development Master Plan that the Sacramento River Water Treatment Plant be expanded to perfect the existing water rights, and that the wells north of the American River be phased out by utilizing this supply. Under this plan, a large transmission main will be installed north of the American River to connect with the transmission network from the American River Water Treatment Plant to serve the north area and transfer a portion of the water supply from this new plant to the deficient area south of American River.

Further urbanization in the southerly portion of the City may require the addition of a new facility in the vicinity of the present Meadowview Waste Water Treatment Plant, however, this is subject to further study and development trends. Eventually inclusion of all areas presently not serviced by the municipal water system is a long-range goal of the City of Sacramento.

Water supply policies. The following policies for water supply facilities are recommended for adoption:

- 1 - Encourage private well system users to utilize the municipal water supply system facilities where the service is presently available.
- 2 - Promote the long-term inclusion of all City areas into the municipal water supply system.
- 3 - Continue to provide high quality water supply facilities and services to City residents.

HOUSING ELEMENT

SECTION FIVE

Approved by the
City Planning Commission
Resolution 229

May 19, 1980

Adopted by the
City Council
Resolution '80-356

June 10, 1980

HOUSING ELEMENT

BACKGROUND

The 1980 Housing Element replaces the 1974 Housing Element. Because the present version contains over 160 pages, only the major provisions are shown on the following pages. Copies of the full text are available for the cost of its printing.

THE HOUSING PROBLEM

A. MAJOR FINDINGS

Major findings in the Trends and Forecasts section and the Housing Problem section are identified below. Commonly used terminology is defined in the Appendix section.

General Housing Characteristics:

1. Sacramento will need an additional 13,580 housing units by 1985 to accommodate expected growth, assuming a 6% vacancy rate. If the present slowdown in new construction and the lower vacancy rate continues for a long period, a short fall in meeting the 1985 need will probably occur.

2. The current substantial slow-down in multiple family rental construction and the possible conversion of numerous rentals to condominium units indicates a potential under-supply of rental housing for the near future.

3. The City's overall vacancy rate for all housing units in 1978 was 2.3%. The rental vacancy rate was 3.8% and the owner vacancy rate was 1.4%. The 1980 vacancy rate characteristics have probably not changed significantly from 1978. (Note: These figures should not be confused with 1979 condominium conversion vacancy rates which were for multiple family units only.)

Housing Condition:

4. Neighborhood preservation as an implementation process must continue to have a high priority if the clear majority of our existing housing stock is to remain stable or be upgraded.

5. Of the total 114,707 occupied housing units, approximately 7,153 renter occupied units and 2,592 owner-occupied units (8.5% overall) are substandard in 1980. These units are located in areas with relatively high concentrations of low income persons.

6. Of those substandard renter-occupied units, approximately 5,722 units (80%) are suitable for rehabilitation while the remaining 1,431 units (20%) are considered too expensive for low and moderate income households to rehabilitate.

7. Approximately 1,944 substandard owner-occupied units (75%) are also suitable for rehabilitation, the remaining 648 units (25%) are not.

8. The rate of substandard housing exceeds the vacancy rate in all categories. Therefore, it is not possible to completely house the City's total population in standard housing.

Housing Price:

9. The average cost of a newly constructed home in 1980 is beyond the reach of the average income family, especially those just entering the housing market. Least cost market-rate homes in newly developing single-family subdivisions start at \$45,000; however, the median price is \$77,000 for Sacramento. The average sale price of used housing is \$74,500. These factors preclude low and many moderate income households from buying, given today's financing rates of over 15% (mid-March 1980).

10. The median rent for 2 bedroom multiple family units in Sacramento for October 1979 was \$233. With an estimated additional \$67 for monthly utilities and related upkeep, a household should earn \$14,400 annually in order to pay no more than a quarter of its income for rental housing. The estimated large stock of single-family rentals are the only option available to many, particularly to those with more than one child:

11. Actual housing costs may be reduced by innovative use of subdivision and zoning controls, by expanded use of manufactured housing, and by the use of energy saving features.

General Household Characteristics:

12. Between 1975 and 1980, the median household income for the Sacramento SMSA has risen from \$13,200 to \$17,600 - an increase of 33.3%. A corresponding or lesser increase can be expected for the City although a precise comparison is not available. (In the same period, the median price of a new single-family detached home increased from \$40,100 to \$77,000 - an increase of 92.0%; and the average resale price on an existing home increased from \$33,600 to \$74,500 - an increase of 121.7%.)

13. Approximately 32,160 households residing in the City in 1980 pay over a quarter of their income for housing. The largest portion (70.6%) are renters.

14. Many special housing needs within the City have been only partially met and require the further development of alternative provisions. Among these are housing for single persons displaced by redevelopment projects, emergency shelters of various types, and those currently living in marginal downtown residential hotels.

Moderate Income Households:

15. An estimated 21,855 households (19.0%) residing in the City in 1980 are moderate income and thus earn between 80% and 120% of the SMSA median income.

16. Moderate income households probably occupy the biggest proportion of the remaining 1,945 substandard dwelling units not occupied by low income households.

Low Income Households:

17. Of the total 114,707 households residing in the City of Sacramento in 1980, an estimated 65,756 (57.4%) are low income and thus earn less than 80% of the SMSA median income.

18. Small families of four or less individuals with low income represent the largest single category of total need (61.1%). Elderly or handicapped households with low income constitute the second largest category of total need (32.5%), and the largest proportion of need is among those owner households (50.3%).

19. Low income households represent a significant share of the single family rental market, particularly in low income fragile neighborhoods. (Source: City 1979-1982 Housing Assistance Plan).

20. Approximately 19,000 (29%) of the low income households in the City are in need of housing assistance as of January 1980. The overwhelming majority of these (16,621 or 87%) are renter households.

21. There is a disproportionately higher number of low income minority households in need of housing assistance (28.3%) than there is total minority households in the City (15.8%).

22. Low income households in need of assistance occupy a disproportionately larger share of substandard dwelling units (7,800 of the total 9,745) including single family structures.

Miscellaneous:

23. There is past evidence of locally extensive racial discrimination in private sector housing, this condition furthering the inaccessibility to housing within select areas of the City by subjects of such discrimination.

24. There is adequate vacant land (14 plus square miles) designated for residential uses at some point in the future. This amount is adequate to serve new City growth for many years. Approximately 81.5% of this amount is free of unusual development constraints.

25. Current federal and State housing finance and subsidy programs are not sufficient by themselves to satisfy low and moderate income housing needs. This is based on waiting lists and testimony received in Housing Element Committee meetings by representatives of the financial lending institutions and the Sacramento Housing and Redevelopment Agency.

26. No one governmental or quasi-governmental agency presently keeps track of all housing subsidy programs within the Sacramento area. This suggests possible inefficiency in the best allocation of limited funding resources.

B. PROBLEM OF AFFORDABILITY

The City of Sacramento has determined that a substantial number of low income households are presently paying more than twenty-five percent (25%) of their income for housing costs, including principal, interest, taxes and insurance. There are no figures to indicate the number of moderate income households which are currently paying in excess of twenty-five percent (25%) of their income for housing costs.

It is clear, however, from other available data that both low and moderate income households in Sacramento are and will continue to encounter serious housing affordability problems. These data relate to the widening gap between median income and home prices between the years 1970-1980. Chart 3 below graphically depicts the nature of the problem. Thus, between 1970 and 1980, the average price of a new home rose from \$23,500 to \$76,000, representing an increase of 223%. Over the same period, median income rose from \$7,600 to \$17,600, representing an increase of 132%. This discrepancy between the sales price increase and the median household income increase explains the difficulty which households of low and moderate income have in finding affordable homes.

Chart 3 also demonstrates that in the most recent years, the rate of increase in the spread between income and price has accelerated. For example, the median resale of a house was \$47,250 in 1978 and \$57,500 in 1979--an increase of \$10,250, or approximately 22%. The median income in 1978 was \$16,400, while in 1979 it was \$17,600--an increase of \$1,200, or about 8%. The rapid increase in the rate of the widening of the gap between income and housing prices will exacerbate the affordability problem in future years unless suitable measures are taken to provide a continuing supply of lower cost units.

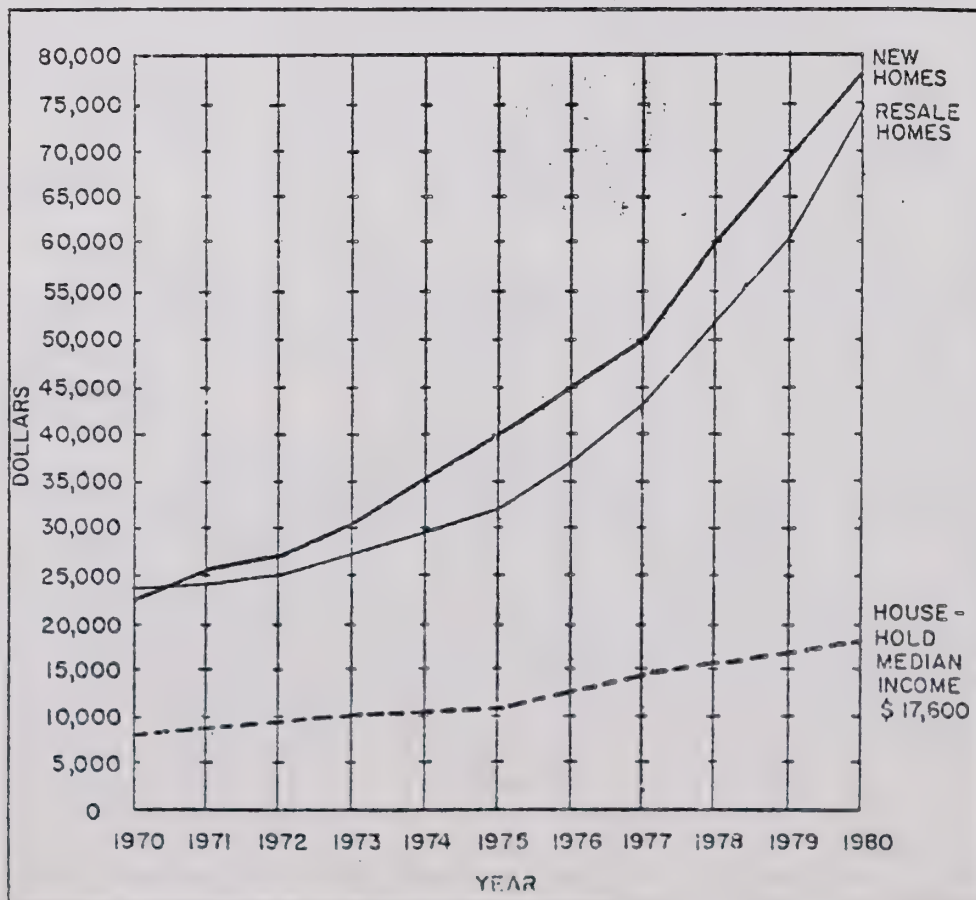
Table 9 in Section III demonstrates the percentage of Sacramento households in each income category. As the number of households increases in Sacramento, the percentage should remain the same. Current trends indicate that most housing production consists of higher priced units. The effect of this is to create a lack of supply of affordable units in the face of numerically increasing households. It is necessary, therefore, to implement measures to preserve the ratio of affordable units as it exists within the community, in recognition of the City's regional responsibility, as well as its responsibility to current and future residents.

If no action is taken and home ownership for low and moderate income persons is rendered infeasible, a larger class of renters will be created. Renters, however, are facing similar affordability problems. Assuming that low income households should pay no more than 25% of income for housing and moderate income households should pay no more than 30% of income for housing, such households (unless subsidized) may not be able to afford even rental housing, based on increasing rental housing costs in the City of Sacramento.

A further and more complex problem is created with respect to condominium conversion projects. Wherever a building occupied by tenants is converted to ownership units, inevitably tenants are displaced. This results in some hardship to individual tenants, part of which can be alleviated by eviction restrictions, rental increase controls, provision for leases, and relocation benefits. However, a broader problem occurs with respect to the community as a whole: the adverse impact on the total available rental stock. Due to market conditions, new unsubsidized rental construction is virtually non-existent. Due to a combination of market conditions and lack of funding, new subsidized units are not being produced. The ultimate result will be an unreasonably low and unhealthy vacancy rate.

This situation creates the need for a housing program which would decrease the number of tenants displaced by a condominium conversion project.

Chart 3
RELATIONSHIP OF INCREASING HOUSING COSTS TO INCOME



C. NEEDS OVERVIEW

An analysis of housing needs is the keystone of the Housing Element. "Unmet needs" define the nature and scope of the housing problem, and together with an evaluation of the constraints and obstacles that impede the meeting of those needs, form the basis upon which subsequent housing policy and program development rests.

If the supply of housing were to precisely match the demand for housing, there would be no unmet housing needs. An evaluation of the relevant data indicates that there are unmet needs, especially for those households with income levels below the median for the Sacramento SMSA.

A comparison of residential building activity with population projections indicates that the building industry is adequately addressing Sacramento's growth trends in terms of housing quantity. As expressed in the preceding section, it is the moderate and low income households that cannot afford adequate housing without paying a disproportionate share of income for housing costs. There are a number of special groups within this large low income group that have particular problems in obtaining adequate housing at affordable prices (e.g. elderly, disabled, female-headed, minority, and large family households). Some households (e.g. minority, female-headed, and disabled households) also experience discrimination and handicap fixture constraints.

All other things being equal, higher income would at least enable a household to seek a larger house to avoid overcrowding, to seek a newer house to avoid unsound housing conditions, to repair and maintain an existing house to alleviate deterioration, and to seek housing at varied locations, thus increasing freedom of choice.

The three major documents which quantify housing needs and which have been considered and used extensively herein to document need are the Housing Opportunity Plan prepared by SRAPC in late 1978, the County of Sacramento Housing Element adopted in December 1979, and the City of Sacramento Housing Assistance Plan for 1979-1982 and its Annual Housing Action Plan for 1980-1981 developed for use in the Community Development Block Grant Program.

Table 25 indicates the number of low income households in need of assistance as estimated by the Housing Assistance Plan.

Table 25
LOW INCOME HOUSEHOLDS IN NEED OF ASSISTANCE

	Total	Elderly Handicapped	Small Families	Large Families	Minorities*	Female Headed*
Owner Households	2,379	1,197	.950	232	605	875
Renter Households	16,621	4,973	10,653	995	4,780	8,812

*Total at left reflects a merger of these category totals with the other categories given.

ACTION PLAN

A. GOALS AND GENERAL POLICIES

Housing Element Administration: Goal--to ensure that the Housing Element continues to address the housing needs of the existing and future residents of Sacramento City.

General Policies:

1. Adopt an Action Program setting forth the details of housing programs directed towards implementing the goals and policies.
2. Encourage the coordination of housing activities among all governmental levels, the private sector, and citizens groups.
3. Review the entire Housing Element at least once every five years to make adjustments based upon changing needs and priorities, and review the Action Program after the first year to make adjustments based on significant changes in demographic/housing data and follow-up study results.

Housing Quantity: Goal--to attain a sufficient housing supply to assure existing and future residents of a safe and sanitary dwelling at an affordable price.

General Policies:

4. Encourage all possible resources and innovative measures to provide expanded homeownership and rental opportunities to low and moderate income households.
5. Encourage construction, rehabilitation, and financing of housing which is affordable by low and moderate income persons, including manufactured housing.
6. Explore and encourage the provision of housing for those in population groups which have special structural requirements or locational needs.
7. Assure that new residential construction is consistent with adopted growth policies and meets projected growth needs.
8. Encourage increased residential densities, and thus housing supply, near employment centers, along major transportation corridors within areas designated for urbanization, and in conjunction with improved transit systems and services.

Housing Quality: Goal--to provide and maintain safe and sanitary housing consistent with local standards, and to assure a level of public services that contributes toward neighborhood and housing quality.

General Policies:

9. Promote the construction and maintenance of affordable, durable, quality housing which efficiently uses land and natural resources .
10. Encourage and assist in the preservation and rehabilitation of existing housing and neighborhoods.
11. Encourage the provision of adequate public services and facilities to each neighborhood.

Housing Distribution and Accessibility: Goal--to ensure that a variety of housing alternatives are available which provide a choice of location, price, and type within each community.

General Policies:

12. Encourage a variety of housing types and prices within each community.
13. Encourage and support the enforcement of laws and regulations prohibiting discrimination in lending practices and the sale or rental of housing.

B. ACTION PROGRAM (Note: The following list describes action programs designed to address the goals and policies identified above. An asterisk indicates elaboration within the supplemental program information section. All of these programs are proposals only and are subject to future implementation and budgeting.)

1. Review and comprehensively update the entire Housing Element in fiscal year 1986/1987; and modify portions of the Action Program in fiscal year 1981/1982 where there are significant changes based on 1980 census information and follow-up study results. This implements general policy 3.
- *2. Establish a central location for tracking subsidized housing units and monitoring Article XXXIV drawdowns, as well as for providing general housing information and for assisting developers in providing low and moderate income units. This implements general policy 2.
- *3. Implement the recently adopted condominium conversion ordinance in order to insure a reasonable balance of rental and ownership housing within each community, mitigate the impact of dislocation and eviction of tenants, insure adequate physical construction standards, and contribute to an adequate supply of low and moderate income ownership housing. This implements general policies 5,9, 10 through 13.

4. Develop action measures as part of the capital improvement strategy in each community plan update, to adequately meet on-going neighborhood beautification and preservation. This implements general policies 10 and 11.
- *5. Seek funds to establish a Home Ownership Opportunity Program through the Sacramento Housing and Redevelopment Agency. This implements general policies 4 and 9.
- *6. Provide funding and support for the establishment of a joint City-County Fair Housing Program. This implements general policies 2 and 13.
7. Develop standards, as part of the General Plan update in fiscal years 1980/1981 and 1981/1982, to ensure that newly constructed low and moderate income housing is energy efficient and designed for cost-effective passive solar use where ever practical. This implements general policies 5 and 9.
- *8. Continue working with the Sacramento Regional Area Planning Commission, the County of Sacramento and the building industry to develop a system for monitoring and updating the vacant lands inventory for the entire county. This implements general policies 2 and 7.
9. Allocate limited local resources for use by the elderly, handicapped, and other special need groups in a manner which equably mixes and distributes the assistance throughout all of the City's communities. This implements general policies 6 and 12.
10. Establish criteria, as part of the General Plan update in fiscal years 1980/1981 and 1981/1982, to be used in deciding when and where increased residential densities are appropriate. This implements general policy 8.
11. Explore the feasibility of amending the City Charter to provide for the investment of employee retirement funds in the local low and moderate income housing market. Direct the City Treasurer to work with the Sacramento Housing and Redevelopment Agency and the Retirement Advisory Board, and to report its findings to the City Council by December 31, 1980. This implements general policy 2.
- *12. Study ways of expanding the use of prefabricated housing within the City and County of Sacramento, based on suitable supply/ demand findings and development standards. This implements general policies 2,4,5,9 and 12.

13. Continue encouraging that at least ten percent of all subsidized housing be usable by the disabled, and continue to fund and administer the Retrofit Grant Program through the Sacramento Housing and Redevelopment Agency. This implements general policies 6 and 12.
14. Direct the City Building Division to reevaluate new construction standards to accommodate the disabled where the City owns and manages housing; and adopt standards, in conjunction with the County of Sacramento, that would result in all new subsidized housing being adaptable for retrofitting. This implements general policies 10 and 12.
15. Continue to fund the Historic Preservation Program for residences within the Central City community. This implements general policies 10 and 12.
16. Explore the possibility of requiring resale residential structures to undergo a survey for building code deficiencies. This implements general policies 9 and 10.
17. Support anti-discrimination case processing and enforcement through the State Division of Fair Employment Practices. (See supplement section for Fair Housing Program.) This implements general policies 2 and 13.
- *18. Support the New Residential Hotels Programs and further develop local funding options and programs for the new construction and the maintenance - rehabilitation of existing residential hotel stock. This implements general policies 4,5,6 and 12.
19. Direct Council-appointed task force to study single persons housing needs within downtown Sacramento, and report its findings and potential funding sources to the City Council by June 30, 1981. This implements general policy 6.
- *20. Direct the Planning Department and Engineering Department to work with the developer/builder community in exploring various public write-down options other than public housing assistance programs to reduce the cost of housing, and report their findings to the City Council by June 30, 1981. This implements general policies 4 and 9.
21. Continue to administer the Community Development Block Grant Program in a manner which maximizes the use of resources to satisfy neighborhood revitalization needs, community wide housing needs, community wide public facility and improvement needs, and economic development needs, giving particular emphasis to the adopted neighborhood strategy and improvement areas. This implements general policies 2,4,5,9,10 and 11.

- *22. Continue to administer the Housing Assistance Plan in a manner which maximizes the use of resources to provide for homeowner and renter housing assistance needs. (See supplement section for current programs used in the HAP.) This implements general policies 4,5,6,9,10 and 11.
- *23. Support the on-going use of the Deferred Payment Rehabilitation Loan Program (Chapter 884, Statutes of 1978) (SB 966 Marks) as identified for the first time in the 1980-1981 Annual Housing Action Plan as a future means of rehabilitating Sacramento's existing marginal housing stock occupied by low and moderate income households. This implements general policies 5,9, and 10.
- *24. Support the on-going use of the CHFA Home Ownership/Home Improvement Program established for the first time in the 1980/1981 Annual Housing Action Plan. Monitor its effectiveness and expand its use, if possible, within the Housing Assistance Plan. Direct the Manager's office to report back to the City Council no later than June 30, 1981, regarding ways of increasing assistance to renters and to meeting more of the HAP low income housing goals. This implements general policies 5,9, and 10.
- *25. Continue to implement the Scattered Residential Site Acquisition Program, giving particular consideration as part of future budgetary proposals to expanding its emphasis of providing small rental complexes in non-low and non-moderate income areas of the City. This implements general policies 4,5,6 and 12.
- *26. Support the Building Industry Association of Superior California in its efforts to attract funds from the Rental Housing Construction Incentive Fund, administered by the State Department of Housing and Community Development, for local use in the construction of low income rental units. Support should be given by adopting a resolution for transmittal to H/CD within 90 days of Housing Element adoption requesting funding consideration based on Sacramento's low income rental housing needs. This implements general policies 2,4,5, and 9.
- *27. Make every effort to insure that the City can use Mortgage Revenue Bonds (see supplement section N) in the future by opposing federal restrictions on the local sale of these bonds as a means of generating below-market rate home loans and construction financing. This implements general policies 4,5, and 12.

28. Support State legislation which increases housing opportunities for low and moderate income households, including proposals for tax exemption of housing rehabilitation and funding for construction of low and moderate income housing. This implements general policies 4,5,9, and 10.
29. Work with private lending institutions to develop and provide financing for low and moderate income housing. This implements general policies 2,4, and 5.
30. Endorse locally the Sacramento HUD Insuring Office policy regarding use of Section 8 New Construction assistance in not more than 20% of each new project. This implements general policy 2.

ACTION PROGRAM SUMMARY

ACTION PROGRAM	GOAL ORIENTA-TION	PRINCIPLE AGENCY/ DEPARTMENT	FUNDING SOURCES	PERFORMANCE OBJECTIVES
1) Review/update	3	Planning Department	General fund	Review/modify if necessary in FY 81/82; update in FY 86/87
2) Tracking/monitoring center	2	City/County jointly	CDBG funds tentatively	Establishment based on Fair Housing Program results - program recommendations due September 1980
3) Condominiums	5,9,10, 11,12, 13	Planning Department	General fund	Evaluation of individual projects and ordinance implementation - on-going process
4) Neighborhood preservation/beautification	10,11	Planning Department	General fund	Action measures in capital improvement program recommendations for each updated community plan
5) Home Ownership Opportunity Program	4,9	Sacramento Housing and Redevelopment Agency	State or federal seed money	Continue to seek funds for Pilot Program
6) Fair Housing Program	2,13	New quasi-governmental body	CDBG funds	Program recommendation due September 1980
7) Energy standards	5,9	Planning Department	General fund	Adoption of updated general plan on or before mid 1982
8) Vacant land inventory	2,7	City & County Planning, SRAPC, building industry	City-general fund, Others-unknown	No time set for developing inventory system-on-going function
9) Special need group resources	6,12	City Council and SHRA	Federal, State, local funds	On-going process
10) Residential density criteria	8	Planning Department	General fund	Adoption of updated general plan on or before mid 1982
11) Housing investments from retirement fund	2	City Treasurer, SHRA, Retirement Advis. Bd.	City employee retirement funds	Findings to City Council by December 31, 1980
12) Prefabricated housing study	2,4,5, 9,12	Planning Department, consultant	Pass-through funds from consultant	Findings and recommendations to Council before December 31, 1980
13) Housing for disabled	6,12	Sacramento Housing and Redevelopment Agency	CDBG funds	On-going process
14) New public housing standards for disabled	10,12	City Building Division	General fund	Adopt standards and implement as soon as possible
15) Historic Preservation Program	10,12	Planning Department	CDBG funds	On-going process in Central City
16) Building code survey on resales	9,10	City Building Division	General fund	Adoption of staff recommendations - no time schedule
17) Anti-discrimination	2,13	Overall City support	Not applicable	City support of program by another agency

ACTION PROGRAM		GOAL ORIENTA- TION	PRINCIPLE AGENCY/ DEPARTMENT	FUNDING SOURCES	PERFORMANCE OBJECTIVES
18)	Residential hotels	4,5, 6,12	City Council and SHRA	Private financing and local deferred loans	Construction/rehab of residential hotels - on-going; three 16 to 20 unit new projects in FY 79/80
19)	Single-persons housing	6	Sacramento Housing and Redevelopment Agency	Not known yet	Action on Council-appointed committee recommendations by mid 1981
20)	Public write-down options	4,9	Building industry, Planning and Engineering Departments	Public funds as yet not specified	Findings to City Council by mid 1981
21)	Community Develop- ment/Block Grant Program	2,4,5, 9,10,11	Planning Department	CDBG funds	On-going process
22)	Housing Assistance Plan	4,5,9, 10,11	Planning Department, SHRA	CDBG and Special funds	On-going process
23)	Deferred Payment Rehabilitation Loan Program	5,9,10	Calif HCD, SHRA	State funds	Meeting goals set for rehab units in annual Housing Action Program
24)	Home Ownership/ Home Improvement Program	5,9,10	Lenders, SHRA	CHFA tax exempt bonds	Meeting goals set for rehab units in annual Housing Action Program; Manager's Office report back on progress to Council by mid 1981
25)	Scattered Residen- tial Site Acquisi- tion Program	4,5,6, 12	Sacramento Housing and Redevelopment Agency	Variety of federal and State sources, local CDBG funds	Meeting goals set for new units in annual Housing Action Program
26)	AB3333/SB229 Program	2,4,5, 9	Calif HCD, SHRA	State funds	Council adoption and transmittal of resolution by October 1, 1980 to H/CD requesting funds for local use
27)	Local Mortgage Revenue Bond Program	4,5,12	City of Sacramento	City generated revenue bonds	No goals set, outcome of federal Ullman Bill will determine whether program can commence
28)	Support favorable State housing legislation	4,5,9, 10	City of Sacramento	General fund indirectly	City performance based on success of monitoring, comment, and position com- patibility with State legislation
29)	Support of private lending institution programs	2,4,5	City of Sacramento	Private sector funds indirectly	On-going coordination and support of private sector efforts
30)	Limit Section 8 New Construction assistance to 20%	2	Sacramento Housing and Redevelopment Agency	HUD funds indirectly	City support of policy when evaluating individual project proposals

OPEN SPACE ELEMENT

SECTION SIX

Approved by the
City Planning Commission
Resolution 98

May 22, 1973

Adopted by the
City Council
Resolution 860

June 7, 1973

OPEN SPACE ELEMENT

INTRODUCTION

Importance of open space. Open space is of vital importance in an urban setting such as Sacramento because it provides relief, utility and contrast within the urban setting of homes, offices, stores and factories. Psychologically, man needs to know that he can turn to open space for recreation, mental and physical well-being, and aesthetic satisfaction. Open space lands can protect man from the dangers caused by earthquakes, fire and floods, as well as provide man with an opportunity to study and enjoy native plant and animal communities. Further, open space in an urban area can have utility for the production of food, visual relief and openness. It also has importance in shaping and structuring the urban development pattern.

Sacramento has long been cognizant of these important aspects of open space. In so doing, the City has provided significant contributions to the physical, economic and social fabric of the overall community. It is recognized, however, that improvement is continually needed if Sacramento is to remain a desirable place to live.

Purpose of an open space plan. The purpose of an open space plan for Sacramento is to enunciate which lands in the overall community, both public and private, should be kept as open space, to identify appropriate open space needs and uses for open lands, and to provide direction in implementing the desired open space system.

The plan also serves to coordinate and more effectively organize existing planning by both the public and private sectors of the overall community. At the present time, Federal, State, regional, County and City agencies all are involved in various aspects of open space planning both within and immediately adjacent to Sacramento. The activities of the City Recreation and Parks Department have traditionally been oriented toward outdoor recreation types of open space...a significantly important function but one that does not address itself to planning for the preservation of resource management lands for example.

This open space plan is furthermore a response to increased community interest. The Planning Commission's appointment of an advisory Open Space Committee to recommend policies, goals and types of open space lands was partially because of their own interest in seeing that the public at large had significant input into the planning process and partially because of expressed interest in open space planning by active individuals and organizations of Sacramento.

Finally, preparation of an open space plan for Sacramento was made necessary by amendments to State planning law. Briefly stated, Section 65563 of Article 10.5 of the California Government Code requires that every city shall prepare, adopt, and submit to the Secretary of the Resources Agency a local open space plan for the comprehensive and long range preservation and conservation of open space land within its jurisdiction on or before June 30, 1973. To assure that the open space plan is meaningful, the Legislature further requires under Section 65910 of Article 4 that an open space zoning ordinance be adopted by the same date.

It was the finding and declaration of the California Legislature in enacting these provisions that:

- 1 - Preservation of open space land is necessary not only for the maintenance of the economy of the State, but also for the assurance of the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation and for the use of natural resources.
- 2 - Discouraging premature and unnecessary conversion of open space land to urban uses is a matter of public interest and will be of benefit to urban dwellers because it will discourage noncontiguous development patterns which unnecessarily increase the costs of community services to community residents.
- 3 - Anticipated increase in the population of the State demands that cities, counties, and the State at the earliest possible date make definite plans for the preservation of valuable open space land and take positive action to carry out such plans by the adoption and strict administration of laws, ordinances, rules and regulations as authorized.
- 4 - In order to assure that the interests of all its people are met in the orderly growth and development of the State and the preservation and conservation of its resources, it is necessary to provide for the development by the State, regional agencies, counties and cities, including charter cities, coordinated plans for the conservation and preservation of open space lands.
- 5 - For these reasons Article 10.5 is necessary for the promotion of the general welfare and for the protection of the public interest in open space land.

By State definition, "open space land" is any parcel or area of land or water which is essentially unimproved and devoted to an open space use and which is designated on a local open space plan as any of the following:

- 1 - Natural resource land
- 2 - Agricultural land
- 3 - Recreation land
- 4 - Scenic land
- 5 - Watershed or ground water recharge land
- 6 - Wildlife habitat

Open space land as designated by the advisory Open Space Committee includes the following:

- 1 - Open space for managed resource production
- 2 - Open space for resource preservation
- 3 - Open space for outdoor recreation
- 4 - Open space for public health and safety
- 5 - Open space for visual amenity
- 6 - Open space for utility

Relationship of open space element to conservation element.

Many open space uses are by their very nature closely inter-related with other elements of the General Plan. This is particularly true when considering the content of the Conservation Element. Specifically, the Conservation Element is addressed to the need of conserving such resources as wildlife and its habitats, productive agricultural soils, surface and ground-water resources, mineral supplies, etc., as well as the need to protect the environment in general from improperly located and constructed development. The Conservation Element emphasizes management of land resources. In order that these resources may be protected, the policies and recommendations of the Open Space Element are an essential and inseparable aspect of the Conservation Element. The Conservation Element, therefore, suggests various resources and their location in the planning area which should be conserved through appropriate policies and land development practices, while the Open Space Element identifies certain areas which, because of their important natural resource value or other value to the overall community, should be preserved as open space.

SUMMARY OF MAJOR FINDINGS, OPEN SPACE GOALS, GENERAL POLICIES, RECOMMENDATIONS

MAJOR FINDINGS

- 1 - Sacramento has an abundant base of existing and potential open space lands. This resource base includes open space for managed resource production, resource preservation, outdoor recreation, public health and safety, visual amenity, and utility.
- 2 - Past preservation of open space lands has primarily been limited to nodal recreation areas such as community, neighborhood and regional parks.
- 3 - Both permanent and semi-permanent open spaces that are recommended as an addition to the present open space system will require significant commitments of time, effort and money from the public and private sectors of the overall community.
- 4 - Much of the City's open space which has important natural vegetative and animal species has already been misused by man, thereby emphasizing the importance of preserving remaining natural areas.
- 5 - New methods of funding and implementing the open space system will be required.
- 6 - Open space requirements for the more intensively built-up areas of Sacramento will be the most difficult to meet.
- 7 - Agricultural lands are the largest single source of open space in the City presently, and the most vulnerable to development pressures.
- 8 - Development of a system for the establishment of acquisition and improvement priorities will be critical to the success of the plan.
- 9 - The City's community plans which were developed between 1963 and 1969 require updating, including the open space components thereof, and should reflect significant citizen participation.

OPEN SPACE GOALS

- 1 - To preserve and enhance the inherent natural beauty of the various geographical areas of Sacramento.
- 2 - To prevent the unnecessary or premature conversion of agricultural and other open space lands to urban uses and discourage urban development patterns which are detrimental

to the overall community.

- 3 - To protect and conserve important wildlife habitats and open areas of unique ecological significance, particularly along the American River.
- 4 - To preserve open spaces which are required for the protection of man from natural hazards.
- 5 - To provide a permanent park and recreation system of sufficient size and quality to serve the future needs of Sacramento.
- 6 - To provide some category of open space land within reasonable walking distance of each resident.
- 7 - To provide an overall open space system for Sacramento which is inter-connecting to the maximum extent feasible and designed to preserve and enhance the natural and man-made environment.
- 8 - To establish a protective open space buffer on the periphery of public and private facilities having potentially undesirable qualities.
- 9 - To emphasize open space as a design element in each of Sacramento's community plan areas.
- 10 - To take full advantage of all regulatory open space implementation techniques, whenever and wherever the opportunity avails itself.
- 11 - To encourage maximum cooperation between all levels of government and private organizations in the areas of management, conservation and protection of open space resources.

OPEN SPACE GENERAL POLICIES

- 1 - Emphasize open space provisions in the development or renewal of urban-type land uses.
- 2 - Protect open space lands by discouraging the premature or unnecessary extension of public services into them which would facilitate their urbanization.
- 3 - Provide open space areas in Sacramento on the basis of acquisition and improvement priorities. Give programs for acquisition, development or maintenance of open space land in established urban areas at least financial parity with programs for acquisition in less developed areas.
- 4 - Give priority to open space areas which reflect the highest number of open space functions, i.e., managed resource production, resource preservation, outdoor recreation, public health and safety, visual amenity, and utility functions.

- 5 - Provide open space areas in Sacramento by utilizing to the greatest degree possible all available methods and techniques.
- 6 - Encourage preservation of privately-owned open spaces. Such open spaces shall be considered an adjunct to, but not a substitute for, public open space needs.
- 7 - Provide to the maximum extent possible linear connections of open space throughout the City which link major open space lands and highly urbanized areas.
- 8 - Utilize citizen participation in determining open space needs in subsequent refinements of the Open Space Element. These needs should be related to the various community planning areas of Sacramento.

RECOMMENDATIONS

General recommendations

- 1 - As part of the public's continuing involvement in the open space planning process, consideration should be given to the appointment of a citizens advisory committee to review and update the City's present Recreation and Parks Plan and assist at the same time in the process of implementing the recommendations and policies of the Open Space Element.
- 2 - As a planning alternative, consideration should be given by the Commission to permitting some highway commercial and industrial land uses in the Natomas area which is recommended for retention as agricultural open space. Such uses could be evaluated on the existence of unique physical and economic conditions which would not induce major ancillary growth in their vicinity. Consideration of this planning alternative could be made following a study by the Planning Department, and in preparation for rezoning lands in the Natomas area from the "A" agriculture zone to the "A-OS" agriculture-open space zone.




Managed resource production

Agricultural areas

- 1 - Reserve the Natomas area north of Interstate 880 (see map on next page) for commercial agriculture by
 - a - using Williamson Act contracts to preserve these lands in an agricultural land use status,
 - b - defining development standards, permitted uses and minimum acreage for agricultural areas, and
 - c - exploring alternative programs which have a positive effect on retaining open space for agriculture purposes.



ADOPTED AGRICULTURE-OPEN SPACE IN CITY

-  PERMANENT AGRICULTURE
-  AGRICULTURE-URBAN RESERVE
-  MAJOR RECREATION-OPEN SPACE

1/2 MILE
1/4 MILE
1/8 MILE

- 2 - Review City agriculture-urban reserve areas at the time of General Plan updating every 5 to 7 years and adjust these areas if contiguous urban growth warrants the change.
- 3 - Review permanent agriculture areas every 20 years and adjust these areas if warranted.
- 4 - Prohibit the formation of new urban-type assessment districts or the expansion of existing districts inside designated agricultural lands.

Mineral supply areas

- 1 - Designate the Granite Construction Company property (already deeded or under contract to be deeded to the City) as permanent public open space.
- 2 - Explore the feasibility of using unrestored sand and gravel sites for special recreation or other open space type pursuits which generally cause adverse impact upon the urban environment and especially residential areas.

Water supply areas

- 1 - Secure open space use of near-surface aquifer recharge zones where the land can also be used for other open space functions.

Resource preservation

Natural flora and fauna areas

- 1 - Limit the intrusion of man and his activities within natural flora and fauna areas to controlled educational and scientific programs, and to controlled penetration of trails.
- 2 - Encourage the preservation of natural areas designated for the City portion of the American River Parkway and expand the natural area to include the grasslands on the westerly half of Cal Expo property south of the levee, and the Bushy Lake lagoon area.
- 3 - Encourage the preservation of riparian habitats along the Sacramento River, in the vicinity of Beach Lake, along the Natomas East and West Main Drainage Canals, Bannon Slough, Arcade Creek, and in other areas that may warrant preservation at a later time.
- 4 - Develop standards which provide a balance between natural open space and man-made improvements along all drainage ways inside the City.

Man-made areas

- 1 - Use open space wherever practical to complement significant cultural, historical or archaeological features within the overall community.

Outdoor recreation

Nodal and linear recreation areas

- 1 - Emphasize the acquisition and improvement of recreation facilities which link nodal areas such as community or neighborhood parks with linear areas such as trail systems or greenbelts.
- 2 - Review and update the Recreation and Park Plan for Sacramento....such review should include but not be limited to
 - a - updating current resources,
 - b - updating acquisition and improvement priorities, and
 - c - including citizens from each of the City's planning communities in the process of determining current and future recreation and park needs.
- 3 - Continue using residential development fees for providing both nodal and linear recreation areas.
- 4 - Continue practice of providing outdoor recreation facilities on or adjacent to public schools.
- 5 - Develop standards for providing "mini-parks" as opposed to more conventional neighborhood or community parks in the more highly urbanized sections of the City.
- 6 - Ensure adequate public access to the American and Sacramento Rivers in newly developing areas through continued administration of dedication or in lieu fee provisions of the subdivision ordinance.
- 7 - Study new programs and incentives that promote trail systems through subdivisions which are separate from the vehicular circulation system.
- 8 - Continue to develop bikeway systems in the urbanized sections of the City, and study the feasibility of expanding the system to include connections between major shopping and employment centers and outlying residential areas.
- 9 - Complete the Sacramento River Parkway study as quickly as possible.

- 10 - Work closely with County and regional agencies in developing a comprehensive system of trails both inside and outside the City.
- 11 - Make optimum use of municipal service corridors such as drainage courses and power transmission easements in the City by providing trails for pedestrians, bicycles and equestrians along their length.
- 12 - Continue to study the feasibility of securing an open space-linear greenbelt along the Old Sacramento Northern Railroad right-of-way extending from the northern City limits to the American River.
- 13 - Concurrent with specific planning of linear recreation areas, take appropriate measures to safeguard against problems presently associated with public access to drainageways.

Public health and safety

Potential hazard areas

- 1 - Provide open space for seismic safety inside the City where it is clearly warranted.
- 2 - Continue policies which limit development inside designated flood plain areas of the City.

Pollution buffer areas

- 1 - Provide sufficient open space around the Natomas and Central Sewage Treatment Plants to minimize the impact of potentially noxious odors on adjacent land uses.
- 2 - Encourage developers of residential subdivisions to use open space as a buffer to highly travelled streets and highways in the City.

Visual amenity

Non-urban areas

- 1 - Continue to evaluate the impact of man and his activities upon the visual amenities offered by such non-urban features as open fields surrounding existing development and flood plain areas of the American and Sacramento Rivers; and take appropriate action to safeguard these amenities.

Urban areas

- 1 - Investigate the feasibility of adopting provisions whereby developers of commercial uses inside the Old City would be permitted "trade-offs" or "credits" in structure and site

design which incorporate exceptional open space features.

- 2 - Designate important entrances to urban Sacramento, and initiate a study to upgrade and preserve existing amenities including open space as a possible feature thereof.
- 3 - Continue to seek improvement in the visual appearance of urban-type open space uses including, but not limited to, the use of landscaping as a technique to accomplish this end.

Utility

Municipal service corridors

- 1 - Develop standards for the improvement of power transmission easements and drainageways in the City which reflect a balance between their utilitarian function and their potential linear recreation function or natural resource preservation function.
- 2 - Secure public rights to linear open space wherever possible within existing and future power transmission easements and drainageways.

Transportation corridors

- 1 - Continue to improve the open space aspects of the vehicular circulation system through tree planting and similar landscaping programs.
- 2 - Encourage the use, where feasible, of open space as a design element in conjunction with waiting stations along public transit routes.
- 3 - Urge the State Division of Highways to landscape open spaces within transportation corridors under their jurisdiction as expeditiously as possible following construction activities.

Miscellaneous areas

- 1 - Take necessary action to ensure minimum adverse impact from future privately-owned open spaces which may be used for sanitary landfill operations, and encourage their restoration and retention as permanent open space upon termination of operations where feasible.
- 2 - Recognize cemeteries as providing an important form of open space, and therefore protect them from any unforeseen conversion to other than open space use.

THE OPEN SPACE SYSTEM

Open space has been an important feature of planning activities in Sacramento for many years. The present General Plan provides for a park-open space system which has been continually refined since its adoption in 1965. The Recreation and Park Plan which was formally adopted in 1968 further refines this system, as do each of the City's community plans and general development plans. Various programs implement the recommendations of these plans through a variety of techniques. Until now, however, such plans and programs have concentrated on the recreational aspects of open space.

Consequently, there is a need to expand the concept of open space to include lands and waters which are essentially unimproved and have important functions in addition to their potential recreation value. A comprehensive system of open space, in its multi-functional context, has not been put into a singular document until now. Furthermore, the City recognizes that many aspects of its presently adopted plans and programs which address the subject of open space are incomplete and require new inputs because of changing needs.

Areas proposed for inclusion in Sacramento's open space system are divided into six functional groups. Each group contains specific types of open space, these having been identified as being especially important to the physical environment of this area.

OPEN SPACE FOR MANAGED RESOURCE PRODUCTION

Agricultural lands, mineral supply areas and water supply areas are included in this category.

Agricultural lands play a significant role in Sacramento County's economy and presently constitute the single largest land use inside the City limits with approximately 26.5 square miles or 28.14 percent of the total incorporated area. Crop lands and pastures used for grazing are located generally north and south in the City. Portions of Northgate-Gardenland, Robla, Meadowview and Valley Hi are agricultural as is nearly all of Natomas and South Pocket.

The concern for protection of agricultural lands as open space is well documented locally in both County and regional planning programs. Various individuals and organizations within the City have also expressed a desire to see valuable agricultural lands preserved and not prematurely converted to urban uses, including the Open Space Committee who made recommendations to the Planning Commission to this effect.

Benefits derived from retention of open space land in an agricultural preserve status include the fact that valuable agricultural

products can continue to be produced, orderly expansion of urban growth can be realized, and compatible planning objectives in this area of interest can be realized thus furthering cooperation and coordination with County and regional agencies.

Lands that are recommended for retention in the Open Space Plan as an agricultural preserve are located in the Natomas area north of Interstate 880. Of the total 6,934 acres within the City in this area, the 3,582 acres north of Del Paso Road are recommended for a permanent agricultural designation while the approximately 3,172 acres of agricultural land south of Del Paso Road are recommended for an agriculture-urban reserve designation. Lands designated for permanent agriculture are not anticipated, at the present rate of urban growth locally, to be required for urban land uses within the time span of the City's General Plan; while lands designated for agriculture-urban reserve could be needed in part or wholly for contiguous urban growth outward from the City core within the next twenty year period.

If open space for agriculture is to be preserved, there are implementation aspects which must be considered. Refined policies must be developed which deal with accepting contracts under the Williamson Act, exploring other means of implementing State laws relating to property tax relief, and pursuing means for recovering tax revenues lost over the short term through such actions. In addition, permissible development standards in this area must also be thoroughly reviewed.

Mineral supply areas in Sacramento are limited to sand and gravel extractions in the College Green area south and east of Folsom Boulevard and Power Inn Road, and to some dredger operations in the American River downstream of the 16th Street bridge. The City of Sacramento has been deeded a former gravel pit south of Jackson Road between Power Inn and Florin Perkins Roads. This was owned by Granite Construction Company. Gravel pits such as this have very limited potential once their primary operations cease, and their conversion to a form of open space use will be of value to the Sacramento community at large. Conservation practices for these areas is discussed in more detail in the Conservation Element.

Water supply areas, as it pertains to the Open Space Element, is restricted to consideration of retaining known near-surface aquifer recharge zones in a permanent open space system. This has the primary function of permitting surface waters to percolate through the earth's crust in areas that could otherwise have urban-type impervious covering. Most such recharge areas within the City are linear in distribution and follow, in many cases, existing or former waterways. Man-made improvements have already destroyed their usefulness as natural open space features in the Old City, East Sacramento, College Greens, and Riverside-Land Park areas of Sacramento. Those near-surface aquifer recharge zones that still exist and should remain as essentially unimproved

permanent open space are located along Arcade Creek, Magpie Creek, and Dry Creek in North Sacramento; along the Sacramento Drain-age Canal south of Reichmuth Park and City portions north of Beach Lake which are associated with that drainage system in South Sacramento River should be retained in a natural state for this same reason.

OPEN SPACE FOR RESOURCE PRESERVATION

Natural flora and fauna areas having unique or representative wild-life features and some man-made areas are in this category.

Few undisturbed wildlife areas are found in Sacramento today. In the past, terrestrial and aquatic areas displaying some of these characteristics were destroyed through apathy or misuse. It is for these types of open space that specific efforts should be made to secure all rights to the properties and to retain them in a natural state for education and scientific study by man on a controlled basis. Trail systems should be limited to those necessary for observation, through traffic being routed around them wherever possible.

Natural areas that should be retained or improved within the City limits include:

- 1 - Sacramento River lands, especially portions of Chicory Bend that have a unique riparian habitat of trees, shrubs, brush, berry tangles, other plants; and that provide winter cover, summer nesting and migration food supply.
- 2 - American River lands, especially the marshlands at the Cal Expo lagoon, and vegetation of the riparian and woodland habitat along the river's edge.
- 3 - Beach Lake immediately south of the City has some drainage ways that feed into it which offer marshland for natural vegetation and aquatic life.
- 4 - Other waterways offering natural habitat for plants and animals are portions of Fisherman's Slough on the Natomas West Drainage Canal, Bannon Slough in the Northgate-Gardenland area, the Natomas East Main Drainage Canal, and Arcade Creek.
- 5 - Other land areas that are designated by the Recreation and Parks Department to be restored in part to a natural habitat for wildlife include William Chorley Park and Reichmuth Park.

Consideration should also be given in the Open Space System to the preservation of open space as a desirable feature of the historical, cultural, and archaeological resource of the overall community. There may be archaeological sites or valuable artifact sites discovered sometime in the future that could feasibly warrant retention in a permanent open space status. None discovered to date, however, have merited such a status. (The

emphasis on providing open space and a means of complementing all urban areas including those of historical, cultural, and archaeological significance is discussed further under the section "Open Space for Visual Amenity.")

OPEN SPACE FOR OUTDOOR RECREATION

Nodal recreation areas such as community, neighborhood and mini-parks, and school playgrounds are included within this open space group; as are linear recreation areas such as trailways, parkway greenbelts, and waterways. These all provide room for a variety of active and passive pursuits. Many passive low intensity recreation pursuits can be accommodated on elongated open spaces within an urban area such as Sacramento. Riding and biking are examples. Other, more active pursuits such as baseball and swimming can be located in any open space, but more commonly in open space having a compact form. All of these recreational open spaces, however, can offer important opportunities for fulfillment of human physical and psychological needs.

A review of the City's park inventory indicates over 1,150 acres of developed land and more than 900 acres of undeveloped or reserve park land.

Roughly half of the developed land is utilized for golf courses. Over 670 acres of the 900 acres in undeveloped land is located on three sites. These lands involve 61 existing parks and 22 proposed parks excluding the Natomas area. In addition, the County and State have several large park areas inside the City.

As a general rule, nodal recreation areas are evenly distributed throughout the urbanized area, but have little interconnection with linear type open spaces that could permit greater accessibility to many areas of high human activity. The Sacramento and American Rivers offer perhaps the greatest opportunity to increase accessibility to the most existing parks.

The Open Space System, as envisioned herein, therefore recommends greater utilization of linear open space recreation areas. Approximately 61.5 miles of creeks, rivers, and drainage canals extend throughout the City alone. An additional 34.5 miles of high power transmission easements also offer potential links in the recreation system as do some of the railroad easements. Some of these miles are limited for this purpose by man-made obstacles such as major thoroughfares. Where these obstacles occur, the local street system may be used. The majority of linkage, however, is believed to be feasible for riding, bicycling and hiking use.

Presently, the City Recreation and Parks Department utilizes a broad variety of funding sources and programs to implement the park system. Federal and State funding sources range from using Legacy of Parks funds to State Bond Act funds. The Neighborhood Development Program which is sponsored by HUD has

recently made it possible to create "mini-parks" in a blighted area of the Old City. All of these tools for implementing the recreation open space system must be re-evaluated, however, in light of continued cutback in funds and program assistance.

Perhaps the most useful tools for realizing the long-term effectuation of the recreation system are the residential development fee which allocates funds from new residential construction to provide for park needs in each of the City's community planning areas, and subdivision requirements which ensure access to lands along the American and Sacramento Rivers.

Implementing the open space system for outdoor recreation is contingent upon three major factors:

- 1 - Updating of the City's Recreation and Park Plan.
- 2 - Developing a plan and specific criteria for acquiring and improving the linear recreation areas to be connected with nodal recreation areas.
- 3 - Encouraging the private sector to provide trail systems for bicycles, pedestrians, and equestrians which are separate from the vehicular circulation system.

OPEN SPACE FOR PUBLIC HEALTH AND SAFETY

Open space in this category is related to potential hazardous areas and pollution buffer areas.

Potential hazardous areas of importance to Sacramento are those subject to flooding. Unstable seismic areas are of questionable significance locally because of their widespread area and the fact that most of the land is already urbanized.

Flood plains of both the American and Sacramento Rivers are left free of most buildings and other forms of man-made improvements that could endanger lives and artifacts. Where such improvements do exist, or are proposed, these must meet rigid requirements of several public agencies including the City.

Pollution buffer areas in Sacramento generally should be provided as protection against excessive noise and offensive odor sources. Provisions for open space around both of the proposed regional sewage treatment plants is essential to the public's health and well-being. The City recently acquired 144 acres of open space north of the proposed Regional Sewage Treatment Plant site. Open space north of the Natomas Sewage Treatment Plant is also recommended. Providing open space along major transportation corridors and adjacent to other offensive odor and noise sources should be explored and implemented where practical.

OPEN SPACE FOR VISUAL AMENITY

Many open spaces have inherent qualities that humans find visually pleasing. The most recognizable of these in the Sacramento area are the rural open fields, the vistas along both the American and Sacramento Rivers, and the urban areas that display extensive landscaping or spacious qualities in some structural forms.

Non-urban forms of visual amenity through securing open space could be accomplished by use of the agricultural preserve designation in the Natomas area and the control of possible visual obstruction within the floodplains of both rivers.

Urban areas can be enhanced through landscaping requirements that are a condition to private development, especially where the use is open by nature, e.g., parking lots. Landscaping requirements are presently imposed by the City in many aspects of private development already, but should be continually re-evaluated and refined. The planned unit development and townhouse zoning provisions have produced visually pleasing open space in Sacramento. These provisions should be continued and further techniques should be investigated. Key entrances to the City should be designated and special consideration given to providing open space where feasible as part of a program to upgrade the City's visual appearance. The Capitol Avenue Bridge approach is a good example of where open space has been effective in enhancing the visual appearance upon entry into Sacramento.

OPEN SPACE FOR UTILITY

Municipal service corridors, transportation corridors and miscellaneous areas such as sanitary landfill sites and cemeteries all have one thing in common: they provide essential services that require a minimum of improvements which obstruct the open space they occupy.

Implied throughout the proposed Open Space System for Sacramento has been the tenant of making multiple use of all open space lands. Drainage ways and power transmission easements have already been recommended as logical open spaces for linear recreation use or natural resource preservation use. Corridors such as streets and freeways and railroads can provide functions in addition to transportation. State landscaping along freeways and city landscaping along major streets increases the visual amenities of the transportation system. The tree planting program administered by the Recreation and Park Department also enhances street corridors throughout Sacramento. Heavy use of railroad rights-of-way by Southern Pacific and Western Pacific precludes most of these corridors from other type uses associated with the Open Space System. Exceptions are along the old Sacramento Northern and Central California Traction railroads where open space linear greenbelts may be feasible.

Sanitary landfill sites have long-term open space potential. This aspect has already been discussed in the managed resource

production section. Cemeteries have open space value in their extensive landscaping, however, these are limited for other open space-oriented uses by cultural and social values.

ACTION PROGRAM

Plans become a reality by developing and augmenting a program for implementation. Identification of a desirable open space system for Sacramento is meaningless unless applicable implementation measures are available and a realistic program of action to effectively use these measures is initiated.

The open space system identified herein demands the use of a broad range of implementation techniques. The best of these depends largely on the type of open space, its location and degree of permanency. Once these implementation techniques are selected, a program for putting them into action can then be developed. Funding is an important part of this aspect. Acquiring new open space lands, making necessary improvements, and maintaining the public sector of the system requires a formalized funding program. This funding program is usually based on need and a method for reaching assignment of priorities. Regulatory controls, or the non-funding aspect of the action program, are also important and have long been used as a method of shaping urban development, including its open space aspects.

Principal constraints presently confronting implementation of the open space system for Sacramento are:

- 1 - Legal and State legislative limitations which, in the past, have resulted in a minimum of controls on the growth aspects of urban development and a lack of awareness of the importance and vulnerability of the natural environment.
- 2 - Inadequate information as to the feasibility and value of retaining natural systems within an urban environment.

Because of these principal constraints, the plan presented herein is limited to an identification of existing and alternative implementation methods for funding and regulation, and an identification of the key factors which Sacramento could consider in the assignment of priorities for specific open space lands.

Further action, however, is necessary if the policies of this plan are to be implemented. Therefore, the following recommendations are made:

- 1 - Appoint a citizens advisory committee to study and recommend what techniques are best suited to effectuate the adopted open space system. Such a committee should be comprised of a cross-section of local government agencies.
- 2 - Develop a system for assigning priorities for acquisition of open space lands.

- 3 - Incorporate as a component element of the capital improvement program, the recommendations of an open space action program.

Methods of preserving open space. Various methods for preserving open space are currently in use in Sacramento or should be given consideration. These are listed in their estimated order of effectiveness and permanency.

Acquisition in fee: Full fee ownership of land for open space preservation may be acquired by purchase, through gifts, or by the process of eminent domain.

- 1 - Acquisition by public jurisdiction. The City of Sacramento presently uses this preservation method extensively for recreation-parksite acquisition.
- 2 - Purchase--leaseback. Land is purchased by the City and leased back to the original owner or another party for uses compatible to open space objectives under conditions that may be stipulated. Variations could allow, where appropriate, leases for specific lengths of time or in life estate to the original owner.
- 3 - Purchase--sale-back. Land is purchased by the City and resold, however, the open space amenities are retained through restrictions on development rights.

Acquisition of partial interest: Interests that are less than the fee simple in land include easements, leases, rights-of-entry covenants running with the land, and other "development rights," a term commonly used to indicate a broad range of less-than-fee interests. The purposes of the acquisition of development rights rather than of the entire fee interest are to lower the costs of acquisition, keep the land on the tax rolls and permit land to remain in productive use. Acquisition of partial interest has not been widely used by the City to date, largely because acquisition in fee is more effective as a permanent preservation device particularly in securing park lands.

There are two primary methods of acquiring limited interests in land where police power regulations are inappropriate and full fee ownership not practical or feasible:

- 1 - Williamson Act. California utilizes an open space inducement plan with tax consequences beneficial to the land owners known commonly as the Williamson Act or officially as the Land Conservation Act of 1965. This enabling legislation describes the conditions under which local government can enter into agreements with owners of land, presently in agricultural or other open spaces uses, to form agricultural preserves. The agreements entitle the participants to tax assessments based on present agricultural uses rather than potential urban uses. The County of Sacramento currently uses this

method of preserving agricultural lands.

- 2 - Open space and scenic easements, Chapter 6.5 of the Government Code. Any city or county in California which has an adopted general plan may accept grants of open space easements on privately owned lands lying within their jurisdiction. The jurisdiction under the provisions set forth in this chapter must find that preservation of the land as open space is in the best interest of the (City) and is important to the public for the enjoyment of scenic beauty, for the use of natural resources, for recreation, or for the production of food or fiber.

Other taxing provisions (in addition to the Williamson Act provisions): Section 421 of the Revenue and Taxation Code provides for a specific method of assessing properties that are designated for open space purposes. Under the provisions therein, open space lands are assessed on the basis of their use and not on the valuation of surrounding lands available for other purposes.

Regulatory methods: The City of Sacramento under its "police power" function can control the use that is made of private property. The City uses in varying degrees all of the regulatory methods listed.

- 1 - Zoning. Use and density are controlled through provisions of the Zoning Ordinance. Those used in the past by the City include flood zoning and agricultural zoning classifications, as well as planned unit development and townhouse zoning provisions. An open space zoning ordinance further extends the regulatory method for preserving open space.
- 2 - Subdivision. Generally, subdivisions fronting on navigable waterways are approved only after provisions are made which guarantee reasonable public access easements to and along riverfront areas.
- 3 - Special permit. Uses within a flood zone are sometimes allowed by the City upon issuance of a special permit. This regulatory method is oriented toward open space preservation and is extended to other zones as well.
- 4 - Landscape criteria. Provisions for landscaping public and private developments are used extensively by the City.

Methods of financing. Since both fee acquisition and less-than-fee acquisition are likely to be quite costly, numerous funding sources should be used.

- 1 - Sale of excess property. The City could place all or a portion of the revenue from the sale of excess property into a special open space purchase and improvement fund.

- 2 - Residential development fee. The City presently uses the residential development fee as a means of purchasing and improving park lands. This method of financing requires all new residential construction to contribute a share towards defraying the costs of recreation and open space facilities resulting from increased population in these residential areas.
- 3 - User fees. Certain types of facilities are operated on a user fee basis. Revenues derived from these fees are used for some improvement costs on golf courses, the zoo and Fairytale Town.
- 4 - Leasing. The City might derive revenue from purchased properties that were leased out to others.
- 5 - Revenue sharing funds. The City is considering the use of revenue sharing funds for capital expenditures related to open space. This will supplement funds derived from the residential development tax device.
- 6 - Federal, State and City funds. The federal Legacy of Parks Program is presently the source of some monies for the purchase of open space lands and their development within Sacramento. This program further provides grants for up to 75 percent of the cost of acquiring interest in undeveloped or predominantly undeveloped land which has significance in helping to shape economic and desirable patterns of urban growth, including the arrest of urban growth. There are other funds available which can be used for costs relating to open space. The Recreation and Parks Department also uses State Bond Act funds, Land and Water Conservation funds, and others. Monies derived from the HUD Neighborhood Development Program have been utilized locally to finance park and open space purchases and improvements. Competition for grants has increased, however, and should not be counted on to implement the open space program. The City should also give consideration to local bond issues as a potential funding device.
- 7 - Private funds. Private citizens and groups have set up non-profit land banks, or trusts, which are being used in various parts of this country to preserve open space in perpetuity without the chance of sale or misuse. The City has received bequests of land or monies for open space in the past, however, it should develop a more formalized program to encourage gifts and/or financial trusts for this purpose.

Determination of open space priorities. Development of a system for assigning priorities for acquisition and improvement of open space lands should include, but not necessarily be limited to the following criteria:

- 1 - Public safety. The protection of the public from natural hazards.
- 2 - Low-income and minority groups. The needs of low-income and minority group neighborhoods are of particular concern to Sacramento in as much as these areas generally lack open space amenities.
- 3 - Managed resource production. The economy of the Sacramento region is dependent on the continuing production of managed resources.
- 4 - Recreation. One of the essential uses of open space is for the provision of outdoor recreation opportunities.
- 5 - Accessibility. Increasing the accessibility of open spaces through linking devices such as linear open space-greenbelts provides continuity to the total open space system.
- 6 - Timing. The timing of acquisition or improvement of a given open space is often a factor which directly influences its feasibility.
- 7 - Multiple use. Multi-functional open space is a means of efficient management of land.
- 8 - Natural resources. The intrinsic value of natural resources is irreplaceable and their preservation is essential.
- 9 - Urban development. Open space as a determinant in shaping the urban form is an important consideration.
- 10 - Environmental enhancement. Open space uses can serve as a method of adding economic value to adjacent properties by creating a more desirable environment.
- 11 - Visual amenities. Certain open spaces in Sacramento offer unique and irreplaceable scenic vistas.
- 12 - Population served. The number of people benefiting from a given open space is important in determining priority for acquisition and improvement of such open space.

CONSERVATION ELEMENT

SECTION SEVEN

Approved by the
City Planning Commission
Resolution 99

May 22, 1973

Adopted by the
City Council
Resolution 861

June 7, 1973

CONSERVATION ELEMENT

BACKGROUND

Conservation within the context of this element of the City's General Plan is defined here as the rational use of the environment to provide the highest quality of living for all community residents. Conservation involves the planning for and control of man's use of his environment with a consideration of the long-range future of the community and with a view to providing environments suitable to the satisfaction of the widest possible range of human aspirants. To consider a natural area merely as a source of agricultural products, wood products, grazing land or a site for urban housing is to emphasize only the quantitative aspects of environmental management. The ultimate object of this community and this plan is to effectively manage the protection of that area or the development of it in order to provide the greatest yield in improved quality of living for mankind.

A conservation element, while new as a separate functional element to the City's General Plan, closely parallels a function which has been actively employed in the local planning process for many years. Central to the practice of proper management of the Community's natural resources, long standing concepts which closely link the more traditional aspects of physical land use planning and management of the total urban environment have consistently been practiced in the past.

Those concepts which have been guiding prior land use determinations are:

- 1 - Recognition that improperly timed and poorly developed land uses, often have a direct relationship to the depreciation of natural resources and to the cause of many environmental problems.
- 2 - Recognition that Sacramento must continue to provide adequate open space for recreation, public health and safety, preservation of natural resources, and managed resource production.
- 3 - Recognition that commitment to involvement in intergovernmental planning and programming for a quality environment is essential to the attainment of local environmental goals.

Intent. The primary intent of the Conservation Element is to provide a framework for the effective conservation, development and utilization of those valuable natural resources found within the City of Sacramento. Attention is therefore directed toward their preservation and improvement now so that both present and future generations can benefit from their wise management.

Contemporary issues. Several local issues need early resolution if the City's natural resources are to be effectively managed. These issues are pervasive in character in that they directly affect a number of public and private sectors which furnish the main thrust of direction and effort required in dealing with present day conservation problems.

The first issue involves a need to clearly identify short and long term environmental management goals and policies as these relate to the total Sacramento region. Toward this end, the Sacramento Regional Area Planning Commission (SRAPC) has recently developed a framework for reaching such decisions. It will be the City's responsibility to contribute in reviewing and testing the refined goals and policies prior to completion of SRAPC's Environmental Quality Element by mid-1973.

Another important issue is the role that the City of Sacramento should play in total management of the region's environment. As the relationship of the City to other agencies and groups concerned with environmental issues becomes more clearly defined, specific responsibilities and unique capabilities of each can be put to their best use. Sacramento has made recent progress in this direction in several ways. Environmental considerations associated with new public and private development within the City is managed by the Planning and Engineering Departments using the Environmental Impact Review process. This serves to refine areas of specific responsibility between the various agencies and groups, and to promote the development of mechanisms for more effective environmental management.

In encouragement of open space conservation and environmental amenities, the City shall encourage urban type development in planned urban service areas. The City shall continue to encourage the most desirable patterns of urbanization from the growth centers and attempt to provide other inter-governmental measures for orderly growth and development. The City shall also discourage urbanization in those areas which are designated to be protected from premature development.

And finally, there is a continuing need to clarify and revise codes and ordinances affecting land development to give appropriate recognition to environmental policies enacted at all levels of government. Those issues relating more specifically to each resource management sector of the Conservation Element are discussed below.

Goals. Sacramento, as a member agency of SRAPC, incorporates those goals which are relevant to the Conservation Element and will be used in the formulative process of creating a Regional Environmental Quality Element. Those are:

- 1 - Develop and maintain a harmoniously balanced ecologic system for the Region (and City), and effective design methods integrating relationships of physical land development without

upsetting that balance.

- 2 - Protect and manage the diverse and valuable natural land, water, and air resources of the Region (and City) for the use and enjoyment of present and future generations.
- 3 - Re-establish the air quality of the Sacramento Valley and Region through identification and control of sources, encouraging industrial, transportation and agricultural technology that decreases pollution generation and by supporting the plans and programs of the Air Resources Board, the Sacramento Valley Air Basin Coordinating Council, and the Sacramento County Air Pollution Control District.
- 4 - Improve and protect the quality of rivers, streams and lakes, including the substantiation of their inherent resources to insure an adequate, potable supply of water for all affected areas and diversified users within the Region (and City).
- 5 - Protect and manage the diverse native wildlife and vegetation of the Region (and City) for the continued use and enjoyment of these resources by man.
- 6 - Insure that man's use of the soil and geologic features in the Region (and City) is compatible with the inert capability and stress functions of the land in order to conserve resources and avoid any development on hazardous and fragile lands.

General policies. The following general policies apply to the conservation, development and utilization of all natural resources within the City of Sacramento:

- 1 - Development of a public cost vs. public benefit study utilized as an integral element in analyzing the real costs and benefits of community growth should be considered prior to extended urban development.
- 2 - Recognize the importance of the Environmental Impact Review (EIR) program in evaluating all development projects which have a significant impact upon the City's natural resources. Appropriate steps should be taken to:
 - a - Utilize the Environmental Impact Review procedure in evaluating all projects which have a significant impact upon the City's natural resources.
 - b - Support and coordinate criteria for a major Environmental impact study program, incorporating comprehensive city areas as opposed to individual development projects.
- 3 - Give full support to only those City-originated projects which are compatible with the concepts of the Conservation Element.

- 4 - Continue to coordinate and cooperate with County, regional, State and federal agencies in the development of more effective programs aimed at fostering the conservation, development, and utilization of natural resources within the greater Sacramento area.

Specific policies for the management of the City's individual natural resources are found in their respective resource management sectors.

RESOURCE MANAGEMENT SECTORS

Chapter 251 of the California Government Code, commencing with Section 65302, specifies that the Conservation Element include a discussion of specific natural resources. These are water and its hydraulic force, forest, soils, rivers and other waters, harbors, fisheries, wildlife, and minerals.

A few of these resources, when applied to Sacramento as a core city within the greater metropolitan area have only indirect implications... for example harbors, forests and fisheries. The City has therefore elected to choose those short and long term natural resources which are important locally and group them into three management sectors: land resources, water resources, and biological resources. A fourth sector, air resources, is dealt with in depth in the Air Pollution Element of the General Plan.

LAND RESOURCES

Soils

Soils are an important natural resource for any area, urban or rural, since each type provides man with opportunities or limitations that directly influence his life. Those soils found locally in Sacramento display a wide range of characteristics. Some are well suited for certain agricultural purposes, others for natural or recreation space, others for conventional-type urban uses, and still others for use only after considerable modification. Proper soil management within these or other broad groupings is dependent upon a balance between soil capabilities, and development policies or practices exercised by the private and public sectors of the community.

Two issues discussed below are central to effective conservation of soils in Sacramento: management practices related to construction and land planning on specific soil types.

Soils and non-urban uses. Non-urban uses within the City's jurisdiction fall within three general categories. These are vacant, large-lot parcels within the urbanized area; natural-open space areas within designated parks and floodways; and

agricultural areas. Of these, agricultural are the most extensive, and likewise the most dependent upon favorable soil conditions for high crop yields.

According to information furnished the Sacramento Environmental Management Task Force by UCD and the Soil Conservation Service, soils within Sacramento and its vicinity can be grouped into four fertility or agricultural ratings based on their suitability for cultivation. These soil groupings are shown on the map on page 7-6. Class one soils are highly suited for sustained production of common cultivated crops, offering few if any limitations. These soils are generally confined to the historic upper flood plain area of the American River; most of which is not actively used for farming since the land is either urbanized or designated and used for low intensity recreation. Lands within the historic lower portions of the American River flood plain and extending southerly along the Sacramento River to the Pocket area have a class two rating. These lands are good for agriculture, having only minor limitations. Presently, only limited areas inside the American River levees are cultivated, the majority of land being used for low intensity recreation uses. Those areas along the Sacramento River outside the levee are urbanized. Class three and four soils extend over the balance of the Sacramento area, including large portions of the non-urbanized Natomas-South Pocket-Meadowview-Valley Hi areas. Soils in these classes are only moderately suited for cultivation and possess important limitations for their agricultural use. Based on soil capability ratings, a majority of the land area presently in non-urban use has definite limitations for extended agricultural use, however, a variety of alternatives in the way of open space, recreational areas, or non-cultivating or limited cultivation farm usage could be integrated effectively to maintain the conservation of this undeveloped status, accomplishing both an effective, useful urban fringe and prevention of uncontrolled urban expansion.

Until planned urbanization occurs, agricultural soils should be utilized following federal, State and County guidelines for sound soil management. Soils being used within the American River Parkway for agriculture should remain in a "recreation reserve" category until needed for recreation use, and utilize the same guidelines as those for outlying agricultural areas.

Soils for urban uses. Soil wetness, depth to rock, hardpans, tight layers, erodibility, clays that crack when dry and swell when wet, and soil slopes are some of the soil features which can influence building construction and land planning decisions for urban type uses. With the exception of soils along the American River and Dry Creek, the majority of land presently urbanized or designated for urbanization is poorly drained, thereby requiring engineering principles that provide adequate systems for controlled drainage. Storm sewers, drainage ditches and land fill operations are daily considerations in approving all new urban construction within the City.



Soil erosion is primarily limited to wind action and is minimal within the City. Dampening of graded surfaces is required in all new subdivision activity to minimize erosion as well as obnoxious air pollution.

Expansive soils of high shrink-swell potential are found in some areas of the Meadowview and Valley Hi communities, while soil instability exists in much of the Natomas area. Roads and structures in all of these areas require special planning and design to counter soil limitations. Other soil characteristics in urban or urbanizing areas present few if any limitations in their management.

Soil management policies. The following soil management policies are recommended for adoption:

- 1 - Encourage soil management practices on lands presently in agricultural use which follow guidelines established by the responsible federal, State and County agencies.
- 2 - Continue to use and improve engineering and construction standards for all urban and non-urban development which compensate adequately for soil limitations.

Minerals

Minerals having commercial value are limited locally to sand and gravel resources. These are concentrated along sections of the American River and in the Perkins area of the College Greens community. Their primary importance in the past has been their utilization for local construction and export, however, near depletion of sand and gravel deposits in the City limits has minimized extracting operations from remaining sources. Large open gravel pits in the Perkins area have been temporarily converted to industrial storage yards or related uses. Their eventual reclamation to more permanent uses requires decisions as to their optimum development. Potentially valuable sand bars along the American River should remain in their present natural state and serve as beaches for water oriented recreation activities.

Sand and gravel extraction operations are controlled through issuance of special permits with appropriate conditions attached to their approval. Because operations of this type tend to scar an area and deplete the resource permanently, their future management is doubly important.

Mineral management policies. The following mineral management policies are recommended for adoption:

- 1 - All naturally sandy beach areas in the American River flood plain should be retained for their recreational and scenic value and not their value as a mineral extraction resource. Appropriate steps should be taken to save these areas from water erosion also.

- 2 - Detailed plans for complete restoration of open sand and gravel pits shall be a condition to issuance of all special permits for future sand and gravel extraction operations.
- 3 - Methods should be explored and recommendations be made for reclamation of existing open gravel pits where extraction operations have ceased.

Land Reclamation

Land reclamation in Sacramento has been in the form of correcting problems stemming from inundation during wet seasons of low lying surface areas that are being urbanized. Levees along both the Sacramento and American Rivers, and improved drainage courses along most of the major creeks have made most of the land within the urban area suitable for development. Areas yet to be reclaimed are some portions of the Elder Creek/Morrison Creek drainage basin in the Valley Hi and Meadowview communities, some portions of the Dry Creek drainage basin in the Robla community. Systematic drainage improvements in both areas are being made by the City of Sacramento. If the flood control plan for the Morrison Creek Stream Group Basin is approved and funded by Congress, the U.S. Army Corps of Engineers will participate with local agencies in further improvements along these drainageways. A high water table in the low lying portions of the Pocket area will require some landfill in addition to pending drainage improvements.

Land reclamation activities are strongly recommended for two additional areas: gravel pits and utility easements. Abandoned gravel pits should be reclaimed by using only suitable fill materials and by shaping these in such a manner as to complement the eventual land use and provide a basis for re-use alternatives. Fragmented and limited purpose public and private utility easements produce potentially wasteful and disfiguring use of the land. As a recommendation within the Open Space Element these utility easements can function as multi-service open space systems, incorporating recreational as well as aesthetic corridors, complementing the area as opposed to antagonizing it.

Land reclamation policies. The following land reclamation policies are recommended for adoption:

- 1 - Continue to reclaim land for urban purposes using drainage improvement programs and requiring land fill operations in low lying areas of the City, only when appropriate for such land usage.
- 2 - Require that reclamation of gravel pits be subject to acceptable fill materials and detailed plans which indicate the final land form.
- 3 - Continue to encourage multiple purpose use of public and private utility easements and promote land reclamation

programs which enhance these areas.

Solid Waste Management

Proper management of solid commercial and industrial wastes can directly benefit a community by providing fill materials where needed to restore land to a useful state. Sanitary land fill operations are presently in operation north of the Old City adjacent to the American River, and in the Perkins area. Both operations are limited to fill materials that do not endanger water supplies.

Solid waste management policies. The following solid waste management policies are recommended for adoption:

- 1 - Continue sanitary landfill operations which do not threaten existing water supplies and do provide a means of restoring land to a useful state again.
- 2 - Support the Sacramento Regional Area Planning Commission and Sacramento County in their efforts to develop effective solid waste management plans and programs for the entire Sacramento area.

WATER RESOURCES

The importance of proper water management to the total Sacramento area needs little explanation. Conservation management practices shall attempt to maintain the total water resources of the City in a condition suitable to sustain the present and potential future water uses related to the activities, needs and desires of City residents and to preserve and protect the water environment to the degree necessary for the health and well being of the general public in conformity with duly adopted local, state and federal regulations relating to water rights, water supply, waste water reclamation and disposal, water quality control, urban drainage, flood control and ground water management.

Surface Water

Key management issues affecting surface water locally are: the supply of surface waters for rural and municipal usage, the quality of surface waters including water pollutant controls, and the adequacy of flood and drainage provisions.

Supply. Sacramento's surface waters comprise a small segment of the Sacramento, American, Cosumnes and Mokelumne Rivers drainage area. The primary supply of water for municipal usage within the City presently comes from both the American River and Sacramento River. Water rights are secured for the two rivers to serve an area which includes and extends beyond the present City limits. Contract purchase of waters from Lake Folsom provides needed supplemental water during the driest three months

of the year. There is adequate surface water supply to meet the City's growth needs well into the future.

Most of Sacramento north of the American River is served by a public well system and distribution system. This well system will probably be replaced in the future with treated river water, like the existing supply source for most of the area south of the American River. In addition, a few commercial and industrial users of City water services south of the American River utilize private wells to supplement their needs during peak operating times, e.g., cannery operations.

Because surface water supply for the City is affected by and in turn affects other water users, future supply of surface waters is planned concurrently in coordination with numerous other water service agencies, State and regional agencies involved in water resources regulation and planning.

Quality. Sacramento is comparatively fortunate in having quality surface waters. Both the American and Sacramento Rivers are presently of high quality, although the latter carries considerable amounts of agricultural waste from upstream sources. Creeks and storm drainage canals have varying degrees of quality, however, these are less important for purposes of municipal consumption. Some of the local factors which have tended to pollute surface waters are ever increasing volumes of liquid wastes, contaminated surface runoff from urbanized areas, and increased use of the rivers and adjacent flood plains for recreation purposes.

At present, the American River is generally concluded to have excellent water even though six sewage treatment plants currently discharge effluents into it. It is anticipated that none of these plants, however, will discharge to the American River after about 1977.

Water released from Nimbus Dam into the American River has some bearing on the quality of river water. Diversion of water to the new Folsom South Canal represents a threat to river releases necessary for water quality maintenance in deficient water years when the guaranteed minimum flow of 1,250 cfs in the lower American River could be reduced by the State Water Resources Control Board. The main threat to future water quality in the lower American River, however, would appear to be from uncontrollable pollution sources associated with improper private sewage disposal, illegal connections to storm drains and surface wash from urbanized areas. The City currently works closely with other agencies in controlling these detrimental elements. Increased boating and motorized biking activities have also increased silt, motor fuel contaminants, and incidental pollution in the American River.

The City presently derives about half of its municipal water supply from the Sacramento River. While this source is currently

of high quality, increased upstream development in the Natomas area and increased use of pesticides and fertilizers on agricultural lands will result in some degradation.

Serious future impairment of water quality in both the American and Sacramento Rivers from liquid waste discharges appears unlikely in light of standards recently adopted by the Regional Water Quality Control Board. Centralization of waste water treatment facilities are presently being planned. This will eliminate liquid waste discharges in the American River, and upgrade the quality of effluents for discharge into the Sacramento River. Both river waters will be improved by this action.

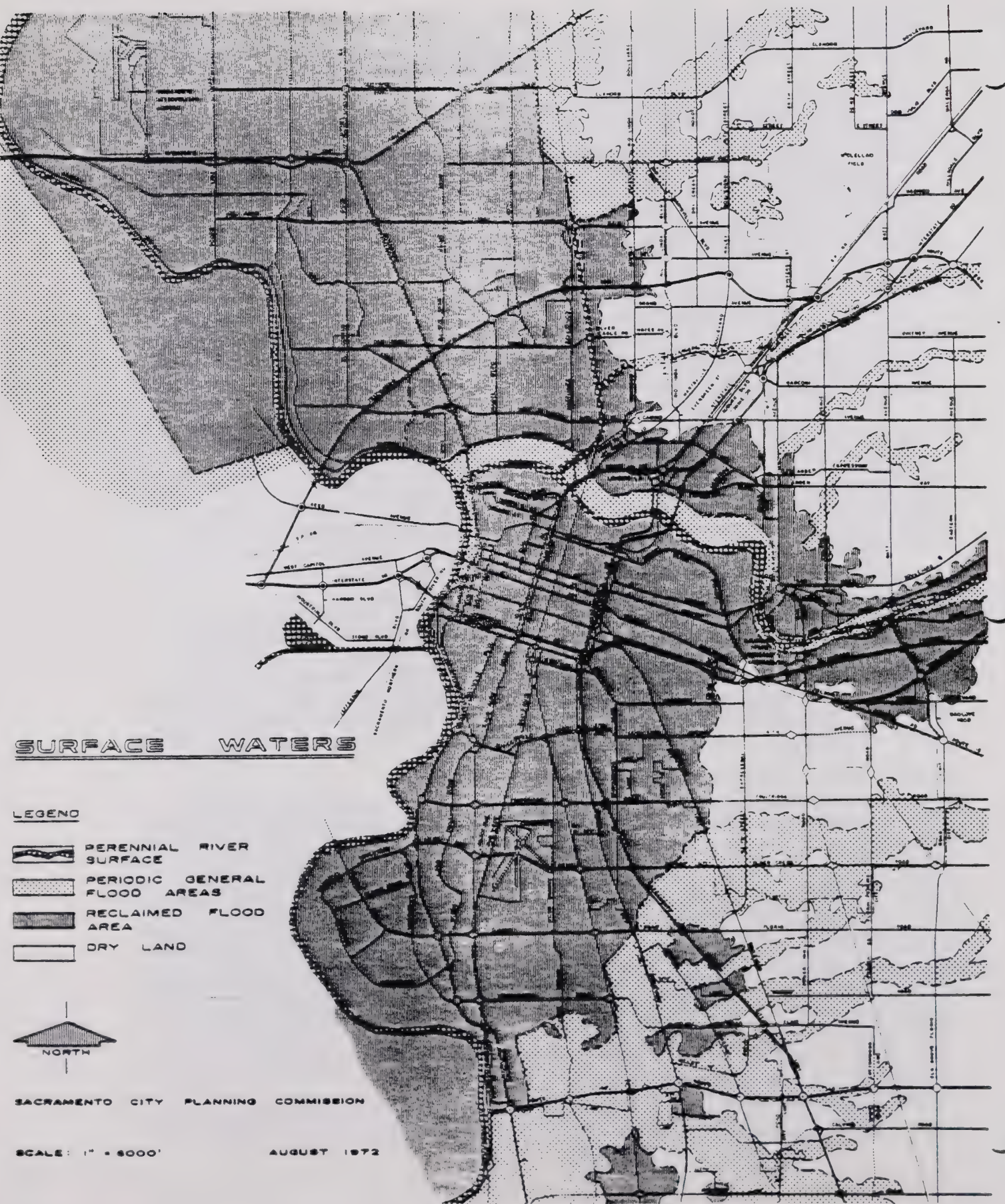
In addition, both the American and Sacramento Rivers will benefit from a study currently underway by the State Water Quality Control Board. This study, which is being performed by Bay-Valley consultants, is designed to provide direction and policy for water quality management and waste discharge requirements in the lower Sacramento Valley and surrounding region.

Control of water quality in the streams, canals and creeks of the City requires further study. Existing pollution of these areas resulting from urban run-off, illegal discharges and minimal flushing action in dry periods will necessitate special programs that attempt to achieve a balance between environmental and functional considerations.

Surface drainage and flooding. Sacramento's natural land and water features have necessitated a mature system of drainage facilities and flood controls. Periodic inundation of lands near the American and Sacramento Rivers, and their tributaries have resulted in a comprehensive system of levees and pumping facilities. Low-lying ground swells and high water tables have required pumping and canal improvements in advance of local urban growth.

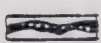


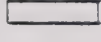
Levees constructed by the U.S. Army Corps of Engineers along the American and Sacramento Rivers and along the Natomas East Main Drainage Canal adequately contain flood waters during critical periods of the winter and spring months. Management of the levee systems and flood plains is largely the responsibility of the State Reclamation Board, however, the City works closely with this agency in controlling land uses adjacent to and inside the potential flood areas. The present and past status of lands in the Sacramento area as they are affected by surface waters is shown on the map on page 7-12. Appropriate surface water management has rendered most of the land within the City suitable for urban development, however, several drainage projects still require attention.

Surface water drainage and flood controls will be required in the following areas:



SURFACE WATERS

LEGEND

-  PERENNIAL RIVER SURFACE
-  PERIODIC GENERAL FLOOD AREAS
-  RECLAIMED FLOOD AREA
-  DRY LAND



SACRAMENTO CITY PLANNING COMMISSION

SCALE: 1" = 6000'

AUGUST 1972

- 1 - The Natomas area (Reclamation District 1000) between the Sacramento River and the Natomas East Main Drainage Canal has limited pumping and drainage canal facilities. Should urbanization occur, these facilities should be upgraded to accommodate increased surface run-off in advance of drainage needs caused by expanded urban growth.
- 2 - The non-urbanized portions of the Pocket area have drainage limitations similar to those in the Natomas area. Some special drainage assessment districts have been formed to correct this situation, and plans for their improvement are underway. The balance of the area outside these assessment areas will require similar action before the entire Pocket area is suitable for development.
- 3 - Dry Creek in the Robla community has historically caused moderate damage to existing improvements in the area and to adjacent agricultural lands. While this area is recommended to be permanent open space over much of its flood plain in the community, some improvements will be required to permit urban development adjacent to it.
- 4 - Laguna Creek in the south Valley Hi area experiences periodic inundation. Drainage improvements will be required here as development occurs.

Surface water, drainage and flooding management policies. The following surface water, drainage and flooding management policies are recommended for adoption:

- 1 - Continue to prohibit urban type uses in all areas which are subject to flooding by means of existing zoning and special permit regulations.
- 2 - Continue to upgrade the quality of surface waters and their drainage existing urbanized areas of the City.
- 3 - Develop and improve water supply systems and facilities capable of serving projected population growth.
- 4 - Support legislation which sustains the flow of water in the American River at a level beneficial to local residents.
- 5 - Encourage private, quasi-public and public groups to participate in and to contribute to the planning and development of the water resources and to the management of water quality.
- 6 - Take appropriate steps to meet standards of surface water quality as set forth by the Regional Water Quality Control Board.
- 7 - Consider waste waters as an integral part of the water resources to be reclaimed to the maximum practical extent for re-use and prevent their ultimate disposal from resulting

in the impairment of the quality of the water resources.

- 8 - Continue participation in all on-going studies conducted by local, state and federal agencies relating to management of the water resources available to the City and relating to the control of factors affecting the quality of these waters.
- 9 - Encourage the initiation of studies on the feasibility of a joint City-County agency for management of the water resources to include but not be limited to: the supply systems, waste water collection, treatment, reclamation and disposal, storm water and flood control systems and ground water management.
- 10 - Pursue methods of balancing the aesthetic qualities of streams, canals and other drainage facilities with methods of improving water quality and its utilization.

Subsurface Waters

While the tendency in water resources planning is to concentrate almost exclusively on surface waters, ground water is an important segment of the water resources and should, as such, receive a great deal of concern. It is our greatest source of potential water supply. It can and does contribute materially to the supply of usable water. Subsurface water requires the same degree of protection against quality deterioration as does surface water.

Subsurface waters or ground waters are important to the Sacramento area as a source for agricultural usage, as a supplemental source in peak periods of water consumption, as an interim supply in areas isolated from major water systems, and as an important water reserve in times of overall surface water depletion. Historical records indicate that ground water levels have been declining since the mid-1920's. According to date in the 1972 Sacramento County Water Resources Planning Study, general ground waters have been lowered at the rate of 1.5 feet annually over the past decade. The greatest depletion is occurring north of the American River where most residents are still on well systems.

Critical to adequate ground water reserves are the stream and river deposits that extend throughout large areas of greater Sacramento and to water-bearing rock strata called aquifer recharge zones which cross these deposits. The hydrology map on page 7-15 shows probable aquifer recharge areas.

Because management of ground waters is a field that requires inter-agency cooperation and controls, the City of Sacramento has worked closely with the County in a ground water study to determine the safe yield of the ground water basin in the County and to recommend sources of supplemental surface water supplies. In addition to these study areas, the

feasibility of ground water recharge utilizing both surface water supply and waste water treatment plant effluent will be investigated. This study coupled with the activities of the Water Resources Policy Task Force of which the City is a part, will provide a guide for ground water management and a plan for supplementing this resource with surface supplies.

Subsurface water management policies. The following subsurface water management policies are recommended for adoption:

- 1 - Continue to cooperate with other agencies involved in ground water resource management studies aimed at reducing ground water extractions to an approximate value of long term safe annual ground water yield.
- 2 - Support the recommendations of the Water Resources Planning Study completed in October of 1971.
- 3 - Encourage private well system users to utilize the municipal water supply system facilities where the service is presently available.
- 4 - Consider ground waters as an integral part of the water resources and encourage local participation in all studies relating to the conservation, management and use of this segment of the water resources, and recommend the initiation of any actions deemed necessary to protect the quality and quantity of the usable underground waters.

BIOLOGICAL RESOURCES

Management of natural plant and animal life in an urban area such as Sacramento involves the identification and preservation of those biotic resources that are especially valuable to not only the City but the region and State as well. Of particular importance locally are the native flora and fauna that are found along our waterways and in the agricultural lands of the Natomas area. Their preservation is dependent upon four policies that must be implemented with effective management controls.

The American River and its flood plain is the most valuable single resource area in the City for vegetation, wildlife, and fish. Grasslands and wooded areas presently support many species of wildlife, and the river itself is a natural habitat for salmon and steelhead spawning. The Sacramento River contains many species of fish and some species of wildlife which live in the limited grassland areas along its embankments. Measures must be adopted to control the intensity of recreation use along both of these river areas. Other waterways where a natural habitat should be maintained and enhanced, consistent with their function as drainage channels, include the First Bannon Slough, the Natomas East Side Drainage Canal, Arcade and Dry Creeks.

Biological resource management policies. The following biological resource management policies are recommended for adoption:

- 1 - Limit marina development on both the Sacramento and American Rivers which would have an adverse impact on anadromous fish.
- 2 - Continue land use management practices in flood plain areas that protect wildlife habitats.
- 3 - Incorporate (into the Environmental Impact Review process) the findings of the California Department of Fish and Game relating to rare and endangered wildlife species and their habitats to insure protection of rare and endangered plant and animal species; and support federal, state and local policies and programs dealing with restoration and management of fish and wildlife.
- 4 - Permit vegetative cover along natural waterways throughout the City where it does not impair drainage.

GENERAL SAFETY ELEMENT

SECTION EIGHT

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

GENERAL SAFETY ELEMENT

GOAL

Protect lives and property in the City of Sacramento and reduce the potential for social and economic disruption of the community from unacceptable risk of hazards due to seismic and geologic activity, fire and flooding.

INTRODUCTION

Each year thousands of lives and millions of dollars in property are lost as a result of disasters due to man-made and natural causes. The magnitude of such occurrences is especially felt in urban areas where human activity is greatest. The City of Sacramento makes a conscious effort to protect its residents from these disasters through a variety of projects and programs. The major concerns locally are in the generalized areas of law enforcement, seismic and geologic damage prevention, and fire and flooding prevention.

One step toward protection against these potential threats to the community is through a comprehensive action plan should disaster occur. Another is through the more conventional service programs of police and fire protection. The General Safety Element is concerned with both aspects.

The General Safety Element is a combination of two elements mandated by the California Legislature in 1971, the Seismic Safety Element and the Safety Element. Since these two have a close relationship, they were prepared simultaneously and combined into a single document. The hazards considered are: (1) seismic - including faulting, ground shaking, and liquefaction; (2) geologic - including subsidence and expansive soils; (3) fire; and (4) flooding. Emergency preparedness for potential hazards is also covered in this element. Thus, this document attempts to identify and evaluate both existing and future urban development with respect to these hazards. By determining the location and magnitude of hazardous areas, measures can be taken to mitigate the risk within the Sacramento community.

Acceptable risk. In order for the City of Sacramento to take appropriate action, the level of acceptable risk for each of the hazards confronting it must be determined. As explained in the State guidelines for preparing a general plan:

"With maximum citizen input 'acceptable risk' should be determined. In making this determination, it should be kept in mind that any attempt to develop the appropriate planning response to potential hazards involves a judgment, either explicit or implicit, of how much is acceptable. There is no such thing as a perfectly hazard-free environment. Natural and man-made hazards of some kind and degree are always present. However, efforts can be productively undertaken to try to mitigate the consequences of known hazards."

It is not possible to eliminate all risks due to natural hazards; however, steps can be taken to reduce their risk. It should be noted that risk reduction measures each carry a cost. The funds spent on the reduction of natural hazards could alternatively be spent on making our streets safer from car accidents and crime, providing better health care, or in other ways reducing the risks of life and improving the quality of our living environment. Therefore, the degree of damage and its attendant costs must be balanced against the costs of mitigating these hazards before they occur. Policies must thus reflect this balance and the level of acceptable risk.

SACRAMENTO SEISMICITY

Background. California is part of a great seismic belt known as the Circum-Pacific belt. This belt surrounds the Pacific Ocean, and experiences the greatest percentages of earthquakes occurring in the world. The State has received its share of these earthquakes as evidenced by its geological structure and by past history during which earthquakes have been a matter of record. Earthquake damage costs in the State have been estimated to be twenty billion dollars for this remainder of this century, assuming no countermeasures are taken.

Seismic activity in Sacramento. The City of Sacramento has suffered only minor damage from past earthquakes occurring in California. Probably the strongest earthquake experienced in the City in historic times occurred on April 21, 1892. There is some evidence that the earthquake originated between Winters and Vacaville in Yolo County. This earthquake was known to have caused some minor structural damage, such as toppled chimneys and statues, fallen plaster, cracked masonry, and a few reported instances where cracked chimneys were thrown to the ground with such force that they were buried. Other than the 1892 earthquake, there has been no other seismic activity of sufficient magnitude to cause collapse of portions of buildings in Sacramento. This

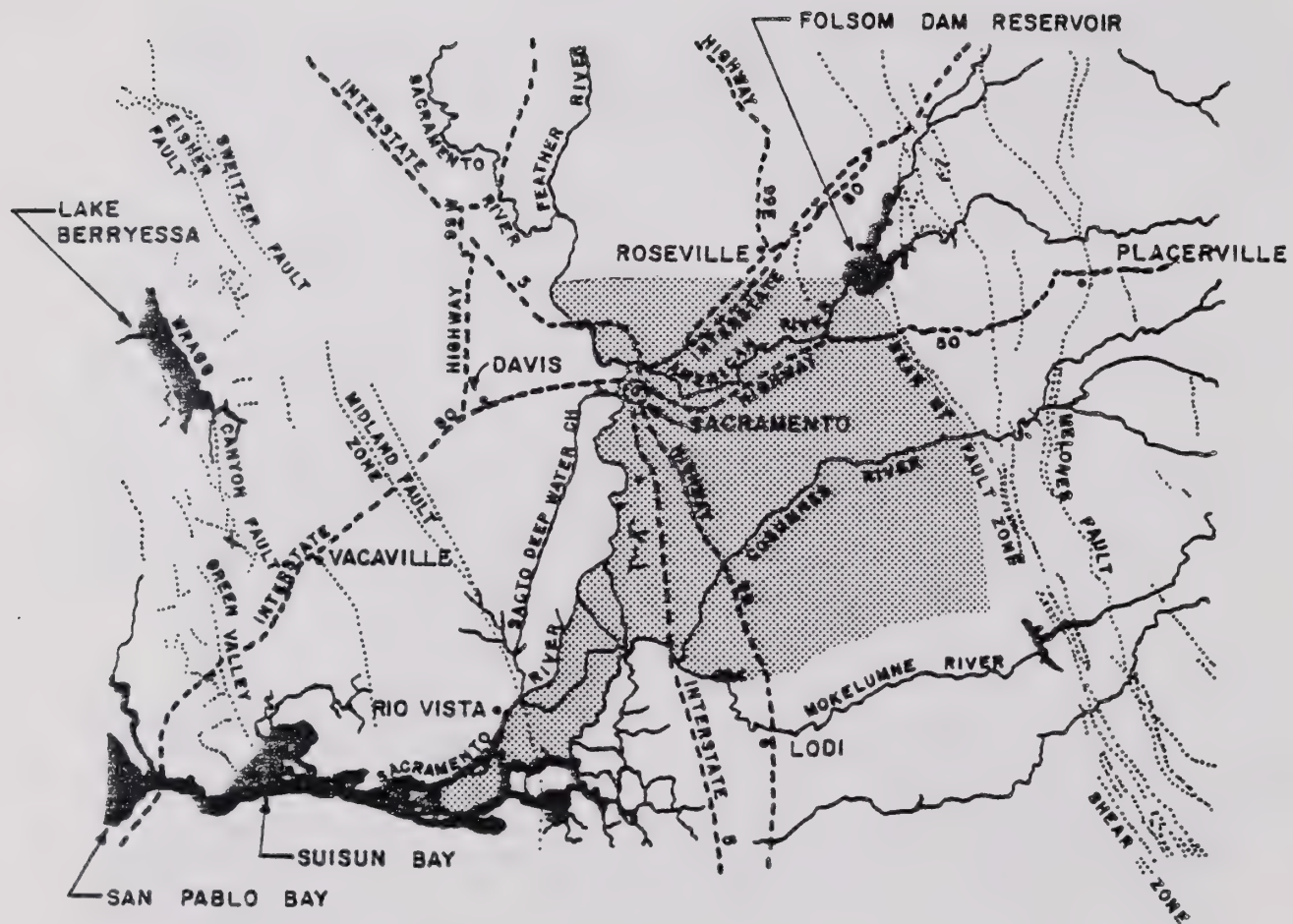
is evident from the still-standing old masonry structures in the "Old City" area. Appendix A contains a detailed chronological history of seismic activity in the Sacramento area.

Surface faulting. According to the State of California's Fault and Geologic Map, there are no known active faults within the City of Sacramento. The location of faults identified for the greater Sacramento area is on page 8-4. The Midland Fault, located in the Delta area, is believed to be potentially active because of suspected motion on one segment in 1892. There is also a possible surface fault located at the Sacramento-Placer County line but its activity is unknown. There is controversy among authorities as to whether this is actually a fault or a natural water surfacing area; thus no conclusion can be drawn at this time as to its existence or activity.

Ground shaking. The most widespread effect of an earthquake is ground shaking. While Sacramento has no known active faults, it can expect earthquakes in the surrounding areas to cause ground shaking that will be felt locally. This would probably cause the greatest damage and losses. Recorded history seems to indicate that Sacramento could logically experience ground shaking on a Modified Mercalli intensity of VII or VIII. At these levels, shaking would be felt by all residents, furniture would be displaced and broken, auto drivers would notice the shaking, and poorly anchored parapets, chimneys and architectural ornaments would be dislodged. Appendix B is a map showing the maximum expectable earthquake intensity in California based on the Modified Mercalli Scale of 1931.

The geologic formation of broad alluvial plain extends over much of the City, and has within its sub-areas low-lying, poorly consolidated to unconsolidated sediments which are often water-saturated. It is these areas that are subject to greater ground deformation through seismic activity. See the map on page 8-5.

Earthquake resistance of any building is dependent upon an interaction of seismic frequency, intensity and duration with the structure's height, condition and construction materials. Structures built twenty to twenty-five years ago will be subject to greater damage than recent buildings. This is especially true in the "Old City" area of Sacramento, where structures in many cases are much older. The majority of these structures are built over unconsolidated soils, and construction standards do not meet today's building codes. In addition to the effect on the external portion of structures, the internal contents may



IDENTIFIED FAULTING IN GREATER SACRAMENTO AREA

LEGEND

- FAULT LINES
- HIGHWAY
- ▨ SACRAMENTO COUNTY AREA

SACRAMENTO CITY PLANNING COMMISSION


NO SCALE



MARCH 1974

GROUND DEFORMATION AREAS OF SACRAMENTO

LEGEND

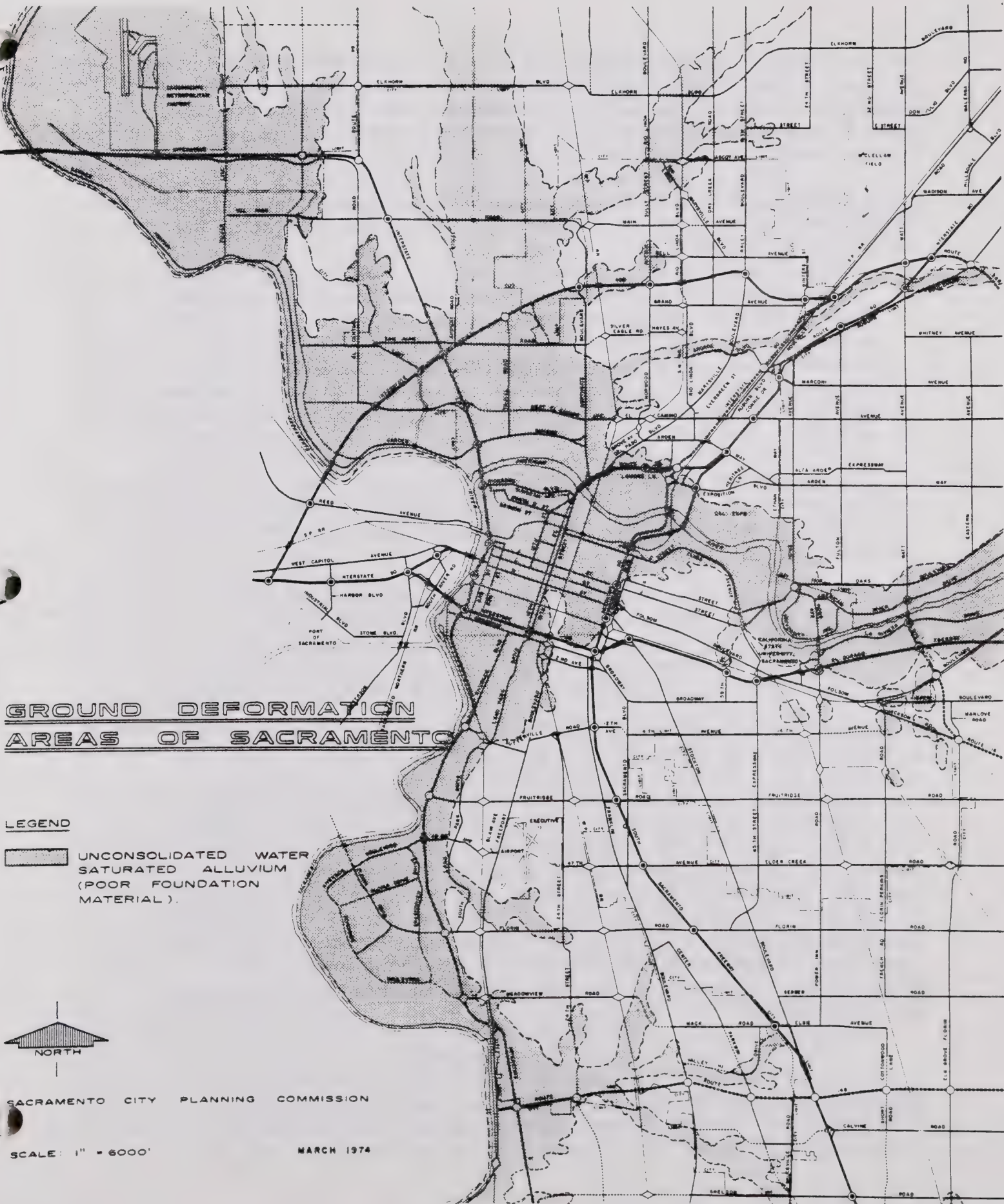
 UNCONSOLIDATED WATER SATURATED ALLUVIUM (POOR FOUNDATION MATERIAL).



SACRAMENTO CITY PLANNING COMMISSION

SCALE: 1" = 6000'

MARCH 1974



be the greatest single source of hazard. Elevators and mechanical equipment, heavy furniture, storage racks, etc., are often dangerous hazards. Methods of reducing these hazards utilize intelligent design and careful construction techniques and special anchorage methods.

Liquefaction. The problem of liquefaction is described by the Tri-Cities Seismic Safety Study for El Cerrito, Richmond, and San Pablo as follows:

"Liquefaction is a process whereby water in unconsolidated sand and other granular materials is subjected to pressure usually caused by ground motion. Since fluids are not compressible and granular materials are, especially when shaken, the water seeks release. As it moves out of materials such as sand it causes the granular material to flow and lose strength. Such materials, in effect, behave as a quicksand. The result, where the liquified materials are in a broad buried layer, may be likened to the action of ball bearings in reducing friction in the movements of one material past another. The grounds literally flow out from under the buildings."

Liquefaction during most earthquakes has resulted in extensive severe damage. Damage to the Los Angeles County Juvenile Facility at Sylmar during the San Fernando Earthquake of February 9, 1971, appears to have been also caused by sliding along liquified layers having an average slope of $1\frac{1}{2}$ degrees.

There are design and construction techniques in some, but not all circumstances because of the prohibitive expense that can alleviate or eliminate the potential hazard of liquefaction. The additional incurred costs, if any, would vary depending upon the surface formation at a given location. Even though there are currently no liquefaction problems known in Sacramento, the potential problem does exist, especially in the downtown area where unconsolidated, water-saturated sediments are at the ground surface. As in the case of the Senior Citizens Housing project on 7th and I Streets, the engineers found liquefaction potential on the site. Thus, the problem of damage from liquefaction was reduced by means of strengthening the foundation.

GEOLOGIC ACTIVITY

Expansive soils. Expansive soils are those which shrink or swell with the change in moisture content. The volume of change is influenced by the quantity of moisture, by the kind

and amount of clay in the soil, and by the original porosity of the soil. The knowledge of the location and extent of expansive soils is of great importance to those planning or designing roads and structures. Considerable damage to structures and roads is frequently caused by the shrinking and swelling of clayey soils. The expansive soils problem is found locally in portions of the Natomas area and in the Valley Hi area.

The losses due to expansive soils can be eliminated completely if the condition is recognized before roads are constructed and foundations are laid. Costs for corrective action are small. Fortunately there are adequate controls in the State and local codes for preventing such damage. Sacramento requires a complete investigation of soils prior to construction of subdivisions and three-story and higher buildings. The City then insures that these meet suitable construction codes.

Subsidence. Subsidence is the sinking of land, usually occurring over broad areas and therefore not normally perceptible at the ground surface. Subsidence presents a major hazard if a sufficient quantity of water is withdrawn during construction activities or through depletion of the ground water table. This phenomenon particularly occurs in those areas underlain by alluvium soils. Construction of Interstate 5 in downtown Sacramento is an example of where the withdrawal of water from the alluvial soils caused the area adjacent to the freeway to subside. Similar problems are now being moderated somewhat by State and Federal programs that require ground water replacement during construction in project areas where depletion would be substantial.

Other geological activities. At the present time, there are no other geologic problems in the City of Sacramento. According to the California Division of Mines and Geology, the City is fairly safe from geologic hazards. However, problems may occur in Sacramento as a result of future earthquake or geological activity. Detailed studies are not readily available and the City should continue to add resource data so that updating or revision of plans and regulations can be made where appropriate.

Seismic and geologic programs. Urbanization of the Sacramento area prior to the early 1950's occurred without particular regard to the seismic design of structures. This was due in part to the historic absence of devastating earthquakes, and in part to more recent technical engineering and structural advancements designed to compensate for such occurrences.

Present construction standards in Sacramento require that all new structures be built with provisions sufficient to withstand seismic activity designated for Seismic Zone 2. The City will soon adopt and implement the 1973 Uniform Building Code for Seismic Zone 3 which recognizes more restrictive State and national earthquake protection standards in the construction or repair of buildings. In addition, the Building Division and Engineering Department require detailed soils reports on all subdivisions and structures of three stories and higher. These reports identify the potential soils and ground water problems and recommend corrective measures. The Sign Ordinance has construction standards that protect residents from unanchored signs on buildings and other structures.

The City's Building Division also administers a Dangerous Building Code. Structures affected by these Codes are generally older buildings, many of which were constructed prior to twenty years ago when seismic requirements were not as stringent as today's requirements. Furthermore, special corrective measures will be enforced prior to 1975 for several public schools which are deemed unsafe by provisions of the State Field Act. The newly enacted Hospital Safety Act requires similar protection for future hospitals.

Because modern building codes and their enforcement programs make nearly all structures built within the last few years reasonably safe from seismic hazards, only continued improvements reflecting technical advancements appear necessary.

Seismic and geologic safety policies. The following seismic and geologic safety policies are recommended for adoption:

- 1 - Undertake a study of any active faults found within the City to determine their width and other characteristics. Prohibit construction of structures for permanent occupancy across faults, should these be confirmed by the study.
- 2 - Initiate a comprehensive survey of all older buildings and places of public assembly, and recommend realistic measures to rehabilitate or remove those which are structurally unsafe.
- 3 - Initiate and adopt a parapet ordinance that would require the removal or strengthening of poorly anchored parapets or architectural detailings, and yet be in balance with the expressed community objectives for historical structure preservation.

- 4 - Ensure that full recognition is given to seismic hazards when updating all land use plans and planning-related implementation programs.
- 5 - Initiate a jointly sponsored City-County-State soils investigation of the downtown area to assess the potential liquefaction problem.
- 6 - Continue to require soil reports for determining expansive soils and subsidence problems on sites for new subdivisions or multiple-story buildings in the City of Sacramento.
- 7 - Support related General Plan policies for the overall safety and welfare of the community.
- 8 - Cooperate and coordinate with other public agencies in the investigation of seismic and other hazards, and support programs which mitigate these hazards.
- 9 - Adopt and implement the 1973 Uniform Building Code requirements that recognize State and Federal earthquake protection standards for Seismic Zone 3 in the construction or repair of buildings.

FLOODING

Flooding, for the purpose of this report, is an induced overflow of water onto land that is not normally covered by water. There are three types of potential flooding with which Sacramentans should be concerned. These are river induced flooding, seismically induced flooding, and rainfall induced flooding. All three are very similar in nature but different in terms of what areas are directly affected and what measures can be taken to minimize their risk.

River induced flooding. High water levels along the Sacramento and American Rivers are a common occurrence in the winter and early spring months. This excess water is contained within the flood plain areas and adjacent levee system, and adversely affects only a very few people living in older, non-conforming uses within the flood plain. If these river waters should overflow, or break through the levee system, the social and economic disruption could be significant. Fortunately, Sacramentans are protected by a continuous system of levees which are constructed in such a manner as to withstand nearly all forces that would induce breakage (excepting possible seismic activity which will be discussed next). The likelihood of water overflowing the

levee crowns is documented as being minimal through regulations and facilities that control the rate of outflow released from the upstream dams on the American River and the reserve overflow area of the Yolo Bypass for the Sacramento River. (The probability of levee overflow is considered to be less than one time in one hundred years.) Four flood control districts also ensure the safety of the community by providing regular inspection and repair of the levees.

Seismically induced flooding. Seismically induced flooding caused by breaks in the levees and Folsom and Nimbus Dams could result in widespread inundation of Sacramento during peak water periods. Property damage could be very extensive and costly, and social disruption great.

Rainfall induced flooding. Rainfall induced flooding, sometimes referred to as sheet flooding, occurs within Sacramento during the winter and spring months. Problems of this type are classified as "local flooding problems," but are nonetheless flood hazards. These are primarily confined to those areas which lack soil conditions for fast absorption after torrential rains and those areas which lack proper storm water collection facilities such as storm sewers and drainage canals. The map on the following page indicates where these conditions most frequently take place. In most cases, sheet flooding which would have occurred in nonurbanized, sparsely populated sections of the City (as shown on the Surface Waters map of the Conservation Element adopted in mid-1973) no longer is a problem. Thus, rainfall induced flooding is a relatively minor natural hazard to property and life.

Human protection. The human impact of a flood on urbanized areas of the City can be rather substantial, displacing people from their homes and places of work as well as interrupting normal daily urban activities. Temporary shelter and financial requirements for replacement of damaged properties would undoubtedly make emergency preparedness and extraordinary money expenditures a necessity. The basic areas of protection against these potential hazards are: appropriate emergency action following seismically induced flooding; adequate improvement and maintenance programs for levees, channels and storm water collection systems; and flood or disaster insurance or other financial protection programs to repair damages.

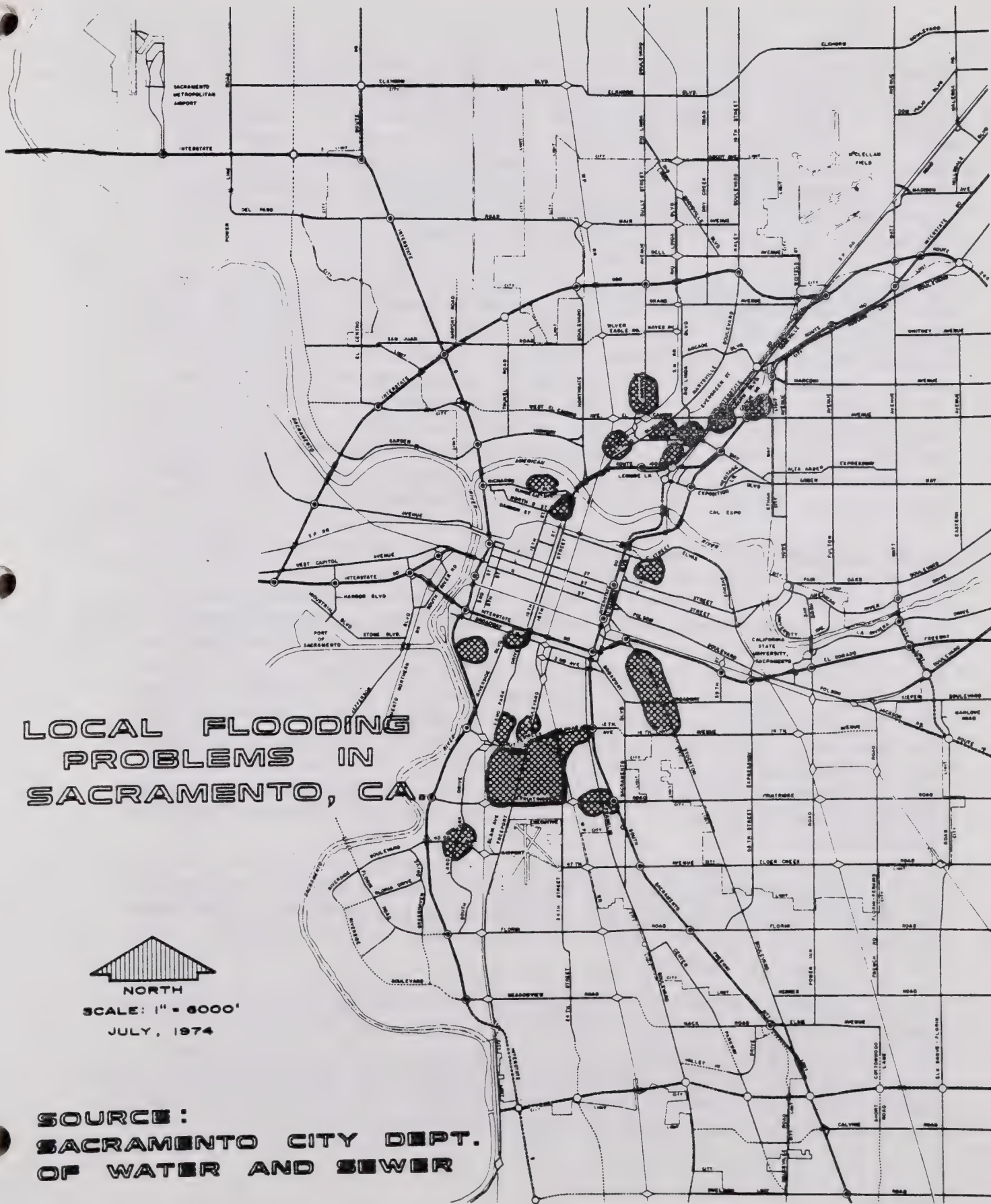
Flood insurance. The Federal Government passed a National Flood Insurance Program in 1968 to encourage local communities to regulate their flood plain development for protection from flood

LOCAL FLOODING PROBLEMS IN SACRAMENTO, CA.



NORTH
SCALE: 1" = 6000'
JULY, 1974

SOURCE:
SACRAMENTO CITY DEPT.
OF WATER AND SEWER



hazards. The City of Sacramento has taken appropriate measures to protect its residents from potential flooding, and to qualify for this flood insurance program. The program is a cooperative effort of the Federal government, private insurance companies, and local government. Also, residents may purchase other liability protection for their personal belongings, and should a flood disaster occur in Sacramento, the Federal government will provide assistance to the disaster victims.

Flood emergency preparedness. Should a major flood occur, the key for effectiveness will be the City's readiness through prior emergency planning. This responsibility is handled by the City's Office of Emergency Planning which is presently preparing a revised emergency plan to meet the changing needs of the community. This plan will identify adequate evacuation measures for all urbanized areas of Sacramento to ensure the safe removal of residents. It will also identify emergency accommodations for the sheltering and feeding of evacuees, and medical facilities and services needed in order to ensure proper care for the injured.

Flood programs. The City of Sacramento has taken measures to minimize the threat of flooding. Improvement of creek and stream groups north of the American River is continually being made by the City's Engineering Department. Plans for the improvement of drainage and runoff in the Magpie Creek system are scheduled in the City's Capital Improvement Program for 1976-1977. Dry Creek from the Natomas East Main Drainage Canal to the County line will soon be designated as a floodway by the State Reclamation Board. The Morrison Creek Stream Group in southerly Sacramento is subject to large seasonal flow that is periodically troublesome. Drainage improvements have been made along its length within the urbanized portion, and further development will require similar improvements.

Financing improvements to the local drainage system is borne by the affected property owners. Maintenance of channels, drainage pipelines, and drainage pumping plants are then provided by the City.

The Reclamation Board in conjunction with the American River Flood Control District and the City of Sacramento is responsible for the inspection and maintenance of the levee system along the Sacramento and American Rivers. The Board also designates floodways in the City, administers regulations to prevent flood damage to development, and monitors peak water flow on the rivers. In

addition, the City enforces flood zone regulations concerning development along the Sacramento and American Rivers. Only agricultural uses and other low intensity uses are permitted after special review and approval by the many agencies who are directly involved in protecting life and property from flood damage.

The U.S. Army Corps of Engineers has constructed a number of flood control projects and has the primary responsibility for operating these projects in accordance with their authorized purposes. There are a number of reservoir projects constructed by Federal, State and local agencies, such as those which affect the Sacramento and American Rivers, that have flood control as a purpose. In some of these projects where a Federal investment is involved, the Corps of Engineers prescribes the flood control operating requirements. These agencies are required to operate the projects in accordance with those requirements. The National Oceanic and Atmospheric Administration of the Department of Commerce is responsible for giving flood predictions and warnings for Sacramento. The National Weather Service also serves in this capacity. Because one of the nation's major River Forecast Centers is located in Sacramento, the City is able to obtain fast, concise data on floods, water levels, and runoff from the two rivers.

Flood control policies. The following flood control policies are recommended for adoption:

- 1 - Support Federal, State and local programs for the maintenance and improvement of the river floodway and levee systems in the City of Sacramento.
- 2 - Continue to administer flood zone regulations for safeguarding property and human life.
- 3 - Improve natural drainage-ways in such a manner as to balance the protection of abutting uses with the consideration of environmental and recreational open space needs.
- 4 - Continue to provide storm drainage improvements in newly developing sections of the City and upgrade substandard drainage facilities.
- 5 - Continue local efforts to encourage the implementation of the Federal Flood Insurance Program for the City of Sacramento.

- 6 - Take steps, within the parameters established by law, to eliminate all nonconforming uses from inside the American and Sacramento River flood plains.

FIRE

Fires following earthquakes. One of the greatest potential hazards to be faced immediately following a major earthquake is the threat of fire, which, if unchecked, could lead to a major conflagration. The threat of fire following an earthquake exists for all building categories in Sacramento. It is especially true, however, in the inner city areas where large concentrations of older, multi-storied buildings of combustible construction materials are closely arranged.

Some additional problems associated with controlling large-scale fires following earthquakes are restricted street access due to collapsed structures and water main breakage. These existed during the three-day fire that followed the 1906 earthquake in San Francisco, and directly accounted for 80% of the total property loss. During the 1923 Tokyo earthquake, there were over 100,000 persons killed, injured or missing, most of which was attributable to the subsequent fires.

Potential fire hazard areas. There are some areas in Sacramento which have large concentrations of combustible valuables. These are generally referred to as "Target Hazards" because they contain highly flammable materials or are grouped in such a manner as to increase the potential risk of large-scale fires. These target hazards are as follows:

- 1 - Lumber yards. The location of lumber yards is often in congested urban areas. Too much lumber crowded into a small space can readily ignite and the resulting fire can spread rapidly. Vast amounts of water are needed to control such fires, and mains in the vicinity are often not large enough to furnish this water.
- 2 - Bulk oil storage stations. These are places from which fuel oil and gasoline are distributed to retailers and consumers. Such storage stations are usually not allowed in congested areas, as the exposure hazard to neighboring property may be disastrous if they ignite.
- 3 - Public buildings. These structures are usually places where large numbers of people assemble. The older structures are particularly hazardous because of their older construction techniques and materials.

- 4 - Mercantile properties. The preponderance of mercantile properties are small retail stores and commercial businesses. These properties usually have a poor fire record. Often they are without adequate warning devices and sprinkler systems, and their owners are often unaware of modern fire protection measures.
- 5 - Industrial properties. This type of property usually has a good fire rating because large inventories of goods would be lost if adequate fire protection programs did not exist. These properties are target hazards, however, because they frequently contain large amounts of flammable materials or combustible substances used in their day-to-day industrial processing.

Estimated fire damage. Fire losses for the City of Sacramento for the last nine years have been over twenty-five million dollars. Records for this period indicate that mercantile properties sustained the greatest loss, whereas industrial or manufacturing uses suffered the least. Many factors contribute to the reported valuations. A couple of major fires, for example, can distort the total figure.

Protective measures. The best way to deal with fires is to prevent their occurrence. In many instances, the phenomenon is beyond man's control, but it is possible to create conditions which minimize related disasters and which facilitate effective response. Sacramento has taken measures that are of a long-range nature, and not generally thought of in a disaster context, i.e., by regulating land uses and structural design of new buildings at the proposal stage. This is primarily accomplished by the Planning Department through the administration of zoning and subdivision ordinance regulations. Fire fighting facilities and municipal utilities are also carefully coordinated with land use planning to provide the best possible protection services. In addition, the Building Inspections Division requires fire safety provisions in administering the Uniform Building Code, the Dangerous Building Code and Housing Code for new and older structures.

A part of the Fire Department's ongoing responsibilities, in conjunction with the Building Inspections Division, is to inspect business occupancies, target hazards, and schools for code violations and fire hazards. The Fire Prevention Program includes, but not limited to: providing and maintaining adequate emergency

exits in buildings, inspecting future development plans for adequate peak-load water supply and constant water flow level, insuring minimum road widths and insuring structural clearance around buildings so that there is adequate access and maneuvering area for fire fighting equipment.

To summarize, this is a comprehensive hazard-reduction program designed to minimize human and economic losses resulting from fires. This capability is confirmed by the Insurance Service Organization which, after a comprehensive survey of Sacramento's fire defense program and physical facilities, has given the City a rating of Class 3. Presently there are only 21 cities in the United States with populations over 250,000 that have a Class 3 rating. There are four cities that have the next highest, the Class 2 rating. The Fire Department has been continually improving facilities, and should receive a Class 2 rating on the next survey in 1975.

Fire protection and prevention policies. The following fire protection and prevention policies are recommended for adoption:

- 1 - Continue the Fire Department's program for the inspection of all public and private buildings, and the review of all future developments to ensure maximum safety from potential fire hazards in the City of Sacramento.
- 2 - Ensure that existing and proposed buildings of public assemblage have adequate fire protection measures to reduce the potential loss of lives and properties.
- 3 - Support and implement the General Plan for Sacramento and its section pertaining to Fire Stations to ensure adequate service areas.
- 4 - Support a special program to improve the level of fire prevention for mercantile properties, especially within the Central Business District.

GENERAL EMERGENCY PLANNING

General emergency planning is essential for any city likely to be affected by a disaster and it requires the cooperation of all public agencies. The City of Sacramento's emergency preparedness to cope with disasters, large and small, is the keystone to the protection of life and property from potential hazards. Effective emergency planning begins with an assessment of local

capabilities for dealing with major emergencies, and ends with implementation of a plan which specifies methods of coordination and control so that outside assistance can be efficiently applied.

Emergency services planning. The City's Office of Emergency Planning is presently reviewing and updating its 1971 Emergency Preparedness Plan to cover a broader range of disasters and more recent emergency preparedness practices. Included within the new plan will be provisions for coordinating the various services of law enforcement, fire protection, evacuation procedures, communications, and emergency medical treatment. The City is also establishing better coordination of its emergency services with those of the County of Sacramento. City Council adoption of Resolution No. 74-029 in January of 1974 established, with the County of Sacramento, a unified emergency services organization for the purpose of preparing mutual plans for the preservation and safety of life and property and making provisions for the execution of those plans in the event of a State of War Emergency or State of Emergency as defined by the California Emergency Act of 1970. As part of the provisions, a nine-member Sacramento County Disaster Commission will review and adopt emergency plans, mutual aid plans and agreements, and other related matters of the County, Sacramento, Folsom, Galt and Isleton. The City of Sacramento has two representatives, the City Manager and a Council member. The City's Office of Emergency Planning also has a full-time liaison officer who coordinates Sacramento's operations with other jurisdictions locally.

An Administrative Plan has been prepared by the County's Office of Emergency Operations, headed by the Emergency Operations Coordinator. This Plan defines and coordinates the responsibilities of the County and the incorporated cities during an emergency, regardless of where it is in the County. An emergency response plan is presently being prepared by that office which will provide for dispatching a communications van to the site of an emergency. Messages from the site could then be relayed to the Emergency Operations Center, to be created at Bradshaw Road and Kiefer Boulevard. During an emergency, this Center would house representatives of law enforcement, fire and rescue, health, and other agencies able to respond to emergency situations.

Evacuation measures. Rapid and safe evacuation of large concentrations of people is particularly needed during large-scale emergencies within cities. Should evacuation be required within Sacramento, the freeways and highways will be the primary evacuation routes. The California Highway Patrol has the responsibility

of assisting the City in evacuation, and has a published plan which specifies the traffic volume capacities and best alternative routes.

Public information. The City's Office of Emergency Planning supplies some materials to primary and secondary schools in Sacramento. Regular courses on disaster preparedness are taught as a part of the school curriculum. Information materials are also readily available to local interest groups and concerned citizens. Eventually, the County Office of Emergency Operations will provide a full range of disaster preparedness educational services.

General emergency planning policies. The following general emergency planning policies are recommended for adoption:

- 1 - Continue emergency planning which coordinates City and County resources and the resources of the various service agencies by actively participating on the Sacramento County Disaster Commission.
- 2 - Continue to update Sacramento's Emergency Preparedness Plan.
- 3 - Engage in efforts to increase public awareness of appropriate measures to prevent and respond to disasters.
- 4 - Establish evacuation measures and programs for the sheltering and feeding of evacuees.
- 5 - Coordinate with Sacramento County in the establishment of a central communications network for disaster preparedness.
- 6 - Cooperate with the State Office of Emergency Services and the Federal Office of Emergency Preparedness in their efforts to develop improved emergency planning, evacuation planning, and public education on potential disaster.

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APPENDIX A

SEISMIC HISTORY IN THE SACRAMENTO AREA

(This history has been taken from "The Report to the Sacramento Municipal Utility District on Seismic Hazard at the Clay Site" by Perry Byerly, August 30, 1967)

1850, August 4.

"Smart shocks in Sacramento" Reference 1 calls it V.*

1857, January 9. (The great Fort Tejon earthquake.)

"Very severe at Sacramento" (Ref. 1)

"San Francisco Bulletin," Jan. 9, 1857: "By Magnetic Telegraph: Earthquake felt in Sacramento: A smart shock of earthquake was experienced here this morning at half past seven o'clock. No damage was caused."

1864, May 20.

"Very severe at Sacramento" Higher than IV?

1868, October 21. (The Haywards earthquake.)

V in Sacramento where plaster was cracked. (Water in river receded, shoaling ships, then came back with a rush.)

1869, December 27. (Origin in Nevada, near Virginia City.)

Ref. 2 says no damage in Sacramento.

Ref. 1 says houses thrown down--denied by Ref. 2.

The "Sacramento Union" for this date says "Door bells were rung and chandeliers and everything else that could do so swung to and fro." No damage mentioned.

1872, March 25. (The great Owens Valley Earthquake.)

Sacramento: "Severe, but no damage done." Sutter Creek: Severe.

*Levels of intensity are those of the Modified Mercalli Scale of 1931.

1881, April 10.

Ione: V?

1889, May 19. (Centered near Antioch.)

V at Lodi where goods were shaken from shelves.

Sacramento: "quite severe--no damage."

Ione: "Many awakened."

1892, April 19. (Centered in Solano County.)

VI at Sacramento where one chimney went down and some plaster.

1892, April 21. (Centered near Winters.)

VI in Sacramento where many chimneys were thrown down and windows were broken. Books were thrown from shelves.

1902, May 19.

Probably V at Sacramento and Ione.

1909, June 22.

VI at Sacramento: Plaster down.

1915, October 2. (Pleasant Valley, Nevada, earthquake.)

V at Sacramento.

1933, June 25. (Center near Wabuska, Nevada.)

V at Lodi where plaster was cracked and goods thrown from shelves.

V at Lockeford where plaster was cracked.

V at Herald where small objects were moved.

V at Sacramento where vases were overturned.

IV at Ione, Martell, and Ryde.

1948, December 29. (Verdi earthquake.)

V at Sloughhouse where books fell.

V at Sacramento and Galt where objects were disturbed.

IV at Jackson, Lodi, and Elk Grove.

1952, July 21. (Kern County earthquake.)

V at Sacramento where small objects were disturbed.

IV - V at Lodi. (Plaster cracked in one instance.)

II - III at Jackson.

1954, July 6. (Fallon earthquake.)

V at Lodi, Sacramento, and Galt.

IV at Sloughhouse.

1954, August 23. (Fallon, Nevada, shock.)

V at Lodi and Clements where objects were disturbed.

IV - V at Jackson and Sacramento.

1954, December 16. (Fairview Peak - Dixie Valley, Nevada, earthquake.)

High V - low VI at Jackson. (Vases overturned, books and pictures fell.)

Low VI at Sacramento where a reservoir roof partially collapsed, plaster cracked, power cables were broken, vases overturned.

V at Sloughhouse where objects shifted, also at Lodi.

1955, October 23. (Walnut Creek shock.)

V at Ryde where knick-knacks fell.

V at Acampo, felt by all; pendulum clocks stopped.

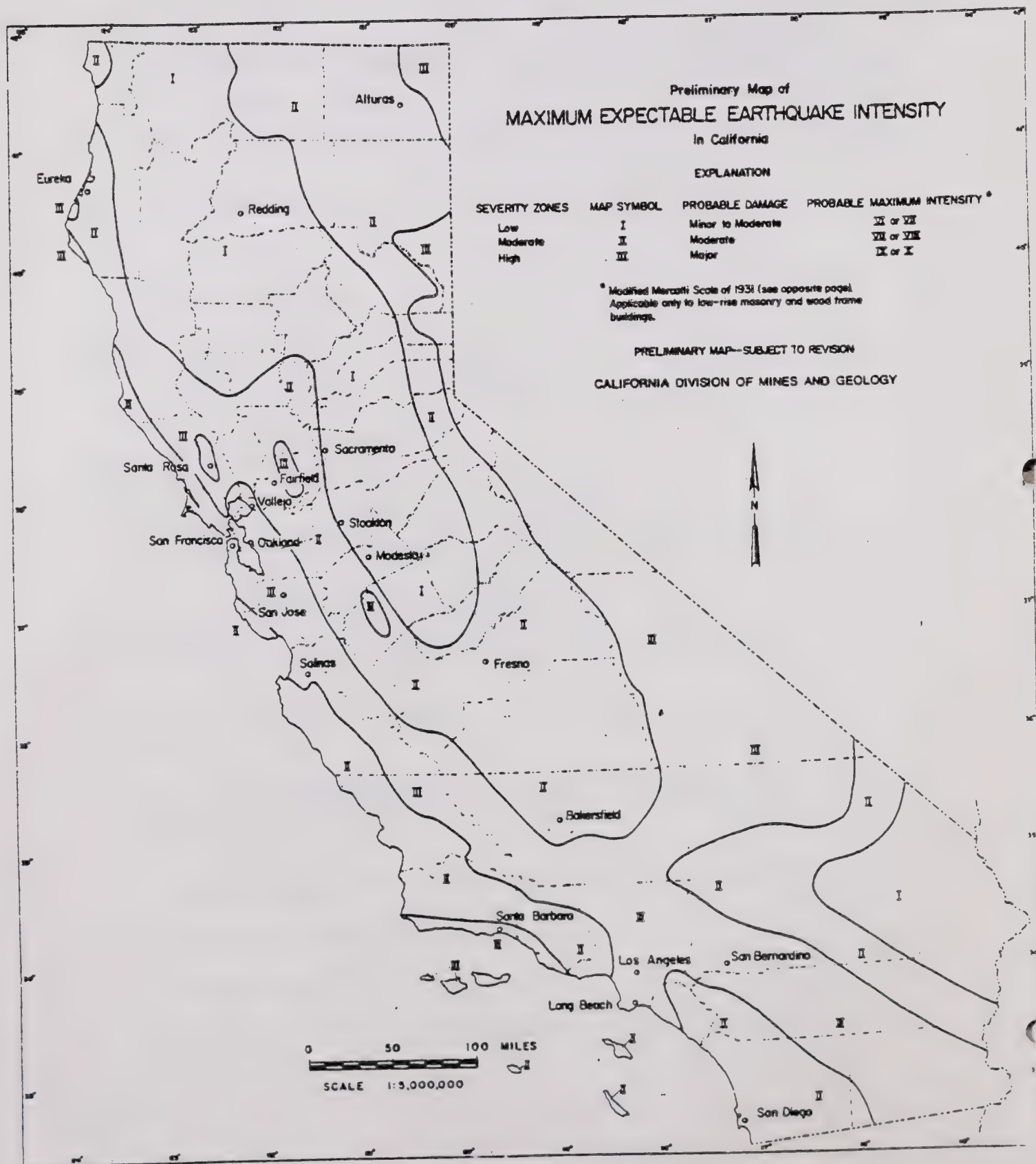
IV at Victor and Waterman. Not felt at Jackson, Slough-
house, Mather Field, West Sacramento.

1966, September 12. (Verdi epicenter.)

VI at Sacramento where plaster was cracked, furniture was shifted, windows were cracked.

V at places listed below. A special detailed study of this recent shock was made for this report.

APPENDIX B



NOISE ELEMENT

SECTION NINE

Approved by the
City Planning Commission
Resolution 124

August 26, 1975

Adopted by the
City Council
Resolution 75-455

September 11, 1975

NOISE ELEMENT

GOAL

Ensure the health, safety and welfare of Sacramento's residents and users, and endeavor to provide an environment which is free of unnecessary and annoying noise.

This should be done by:

- 1 - Establishing acceptable levels of noise by land use categories;
- 2 - Reducing noise wherever it exceeds the designated ambient level for that particular land use category;
- 3 - Ensuring that sound transmitted across parcel boundaries is limited to the level permitted within the receiving area;
- 4 - Limiting truck traffic, and its noise, to designated routes outside residential areas wherever possible;
- 5 - Designing major traffic thoroughfares wherever possible in such a manner as to reduce noise generated by them; and by
- 6 - Actively encouraging those governmental agencies with primary responsibility for reducing noise to take appropriate action.

INTRODUCTION

Purpose. The purpose of this element of the General Plan is to provide an understanding of noise problems in this City and to recommend policy statements which identify measures to correct these problems so that Sacramento can improve the quality of its environment. This noise element is also deemed to fulfill the mandatory element provisions as set forth in California Government Code Section 65302(g).

The Phenomenon of Noise. Noise can be defined as unwanted sound. It is often difficult to objectively describe since what is a desirable sound to one person is noise to another. A particular selection of music for example evokes this characteristic many times, being pleasant to one person but irritating to another. The same music played after midnight, however, may be unbearable to both. The duration, time of day, pitch, frequency and intensity of a sound all contribute to its being defined as desirable or undesirable. There are, however, many sounds which are categorized as noise by nearly everyone. This element is concerned primarily with these sounds.

Until recently, noise was tolerated as an inevitable consequence of twentieth century progress, particularly in urbanized centers throughout the world where the ambient or background noise levels have increased steadily. Sources of such noise are in large part man-made; the majority of it from airplanes, trains, trucks, cars and motorcycles. Added to the transportation sources are significant amounts from manufacturing, construction, and domestic activities.

While noise pollution does not yet have the attention that other environmental concerns such as air and water pollution have, popular interest and concern is gradually increasing. There is substantial clinical data to support the adverse effects of noise on the human being. There is also an expanding list of existing and proposed noise level standards. Much of the work that needs to be done to correct the noise problem in urban communities, however, is either not technologically or economically feasible at this time or is pre-empted by other than local governmental agencies. The City of Sacramento recognizes these limitations, however, it is believed that there are reasonable measures which can be currently utilized to improve the present environment until such time as more comprehensive measures become feasible.

The Effects of Noise. It has long been known that prolonged exposure to high levels of sound can produce permanent hearing loss. What is less known but nevertheless very important is that more subtle physiological, psychological, social and economic effects occur which are directly or indirectly detrimental to humans.

The most significant and obvious harmful physiological effect is permanent loss of hearing as mentioned above. In a report on noise to the President and Congress in 1971, the Environmental Protection Agency stated that some 40 million Americans are regularly exposed to hazardous levels of noise, and the U.S. Public Health Service estimates that more than eight million people have already sustained some degree of hearing impairment resulting from noise. There is also some evidence that hearing loss often associated with the natural process of getting older would not occur if our industrial society was substantially quieter.

The 1971 EPA report further stated that "noise can interfere with speech communication and the perception of other auditory signals, disturb sleep and relaxation, be a source of annoyance, interfere with an individual's ability to perform complicated tasks, influence mood, and otherwise detract from the quality of life." Additional evidence of physiological and psychological changes are cited in medical journals. These changes range from increased blood pressure and cholesterol levels to elevated heartbeat, respiration, and muscle tension. Such stress can contribute to erratic physical performance and eventually impair mental acuity.

During 1971 and 1972, the Orange County Health Department conducted numerous case studies, some related to the harmful effects of noise. Criteria resulting from these case studies are shown in Table 1.

Table 1

HARMFUL EFFECTS ON HUMANS

<u>Harmful Effect</u>	<u>Noise Ranges in Decibels at Which Harmful Effects Begin to Occur</u>
Hearing loss	75-85
Extra auditory physiological effects	65-75
Speech interference	50-60
Interruption of sleep	35-45

Maximum suggested non-occupational exposure to noise at the upper limits shown in Table 1 is contained in another 1971 EPA report entitled "Fundamentals of Noise." To provide protection of essentially all persons, the report recommends no more than 16 hours exposure daily to 70 decibels. Noise levels may be increased by 5 decibels for each halving of the time exposure per day without increasing the hazard of hearing impairment.

While the foregoing data does not apply directly to the City of Sacramento, it does apply to an area of California which is also urbanized. The first three physiological effects can occur as the result of human activity in any land use category of a city and the last effect—interruption of sleep — primarily occurs in residential areas. These noise ranges and their associated land use/human activity therefore have relevance in establishing healthy as well as realistic and acceptable land use compatibility standards for the City of Sacramento.

Unconstrained noise can also result in unnecessary expenses to the community-at-large and to its affected residents and users. Often times noise which is not controlled at its source results in costly insulation of structures, deflective barriers, or other noise attenuation measures along the sound path. Long term noise problems associated with many airports and closeby freeways can induce depressed land values, sluggish property sales and secondary expenses such as increased police or fire protection services because of a higher vacancy rate and vandalism. While these conditions are not typical of the Sacramento community, they could become so if noise is permitted to go unchecked. It is also possible that the economic viability of an urban center like Sacramento could suffer, in part, due to the fact that quieter places to work and live could be found in the less urbanized and therefore quieter areas away from the City.

Description and Measurement of Noise. The description and measurement of noise is subject to a set of problems all its own. Some combinations sound pleasant, others are dissonant and irritating. The fact that sounds are a complex mixture of tones and overtones varying in volume, pitch and duration have led to many concepts and mathematical techniques related to their description and quantification as an annoyance factor. Certain sounds, however, are almost universally accepted as being annoying.

Once a sound is produced however, regardless of type of source, it travels to its receiver. The path it takes can also have a substantial effect on its quality, and how and where it is received. This is an important consideration in understanding some of the noise mitigating measures presently available where noise cannot be technologically or economically controlled at the source itself. For example, among other characteristics, sound travels at different speeds in air, water, metal, and other media; and can be focused, reflected, or dampened by intervening structures or barriers.

When sound reaches the human ear, it responds in a non-linear fashion. At low volume, the ear is more sensitive to middle frequencies than to high or low frequencies in the audio spectrum. This phenomenon diminishes as volume increases. The response of the ear to volume changes is more or less logarithmic, i.e. sound containing twice the energy of another sound will be perceived as only slightly louder.

All of these variables obviously make it difficult to describe a sound, let alone measure it and compare it with other sound in consistent terms. One of the most successful and widely used systems to describe sound is based on the unit called the "bel." Bels are expressed on a logarithmic scale so that they correlate closely with the non-linear volume characteristic of the human ear. Since the bel is too large in quantity for convenient use, it is further broken down into a unit called the decibel (dB) which is one-tenth as large. A weighing factor is often applied to the decibel scale to compensate for reduced human sensitivity to high and low audio frequencies. The set of weighting characteristics most commonly used is called the A-scale, and sounds expressed in decibels weighed by the A-scale are abbreviated dBA.

Even with a scale to describe individual sounds, a description of "noise" is difficult. An accurate noise measurement would have to take into account loudness, pitch, duration, frequency, the number of noise events, the time of occurrence, whether the sound was sustained or sudden or repeated, and so forth. No such comprehensive measure has yet been developed. There are, however, several different systems in use, some of which are described in the appendices. Noise contour maps supplied by other agencies utilize those different systems, and they are generally not interchangeable, although approximate conversions may be made in some instances.

All of the noise source data, and proposed standards, along with the various transportation noise contours are expressed in decibels (dB), utilizing the Day-Night Equivalent Sound Level (Ldn) rating scale. The Ldn is a noise measurement based on human reaction to the cumulative exposure to noise over a 24-hour period. It takes into account the greater annoyance value of nighttime noises. This method is recommended by the Environmental Protection Agency and the State Office of Noise Control for use in describing the cumulative effect of exposure to all sources of environmental noise, and is based on the A-weighted scale of sound measurement. A more thorough description of Ldn is found in Appendices A and B.

The State Department of Transportation furnished the City of Sacramento with a set of existing and projected L10 noise contours for freeways and highways in the City. Briefly, the L10 method measures a noise level which is exceeded ten (10) percent of the time. However, in order to ensure that all noise data in this Element are consistent, the Planning Department modified Caltrans' maps through predetermined mathematical calculations by subtracting 3 decibels from L10 values to get an equivalent Ldn level. Thus, L10 and Ldn values are indicated on the maps because ongoing projects necessitate L10 values until unilateral conversions are provided by various governmental jurisdictions.

NOISE IN SACRAMENTO

Noise in Sacramento is best described on two generalized levels; first, the ambient or background level which is an accumulation of all sounds from many sources near to and from the observer without individual sources being singled out; and secondly, another level which describes noise from a specific type of source.

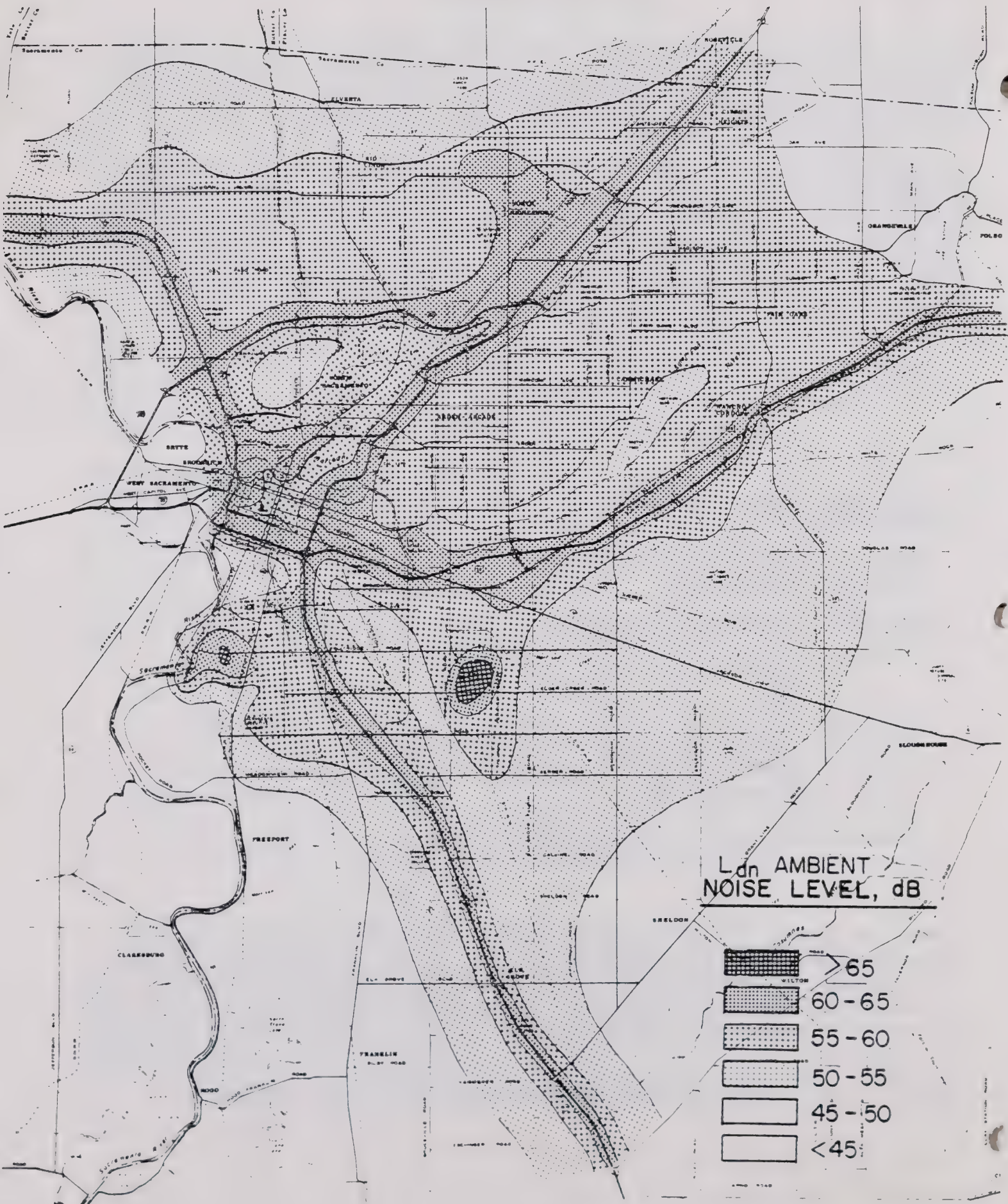
Ldn Ambient Noise Levels. The Sacramento County Environmental Health Department and the independent acoustical engineering firm of Wilson, Ihrig & Associates conducted a County-wide study and survey of noise during 1973. Within the City portion alone, 102 sites determined by a grid distribution pattern were surveyed, each site being measured numerous times over daily and monthly periods. These surveys disclosed the following typical ambient or background noise levels associated with urban and suburban, industrial, commercial, and residential areas:

Table 2

Ldn AMBIENT NOISE LEVELS, SACRAMENTO COUNTY

<u>Generalized Areas</u>		<u>Ldn Noise Levels in Decibels</u>	
		<u>Nighttime</u>	<u>Daytime</u>
Rural & suburban	Very quiet community, far from main traffic routes	40	50
Suburban & Urban	Quiet community, some nearby main traffic routes and higher density residential & semi-residential/commercial use	50	60
Suburban & urban	Less quiet community near main traffic route, intersections, limited commercial & industrial use	60	65
Urban	Least quiet community near freeways, airports, industrial use	65+	70+

The above ambient levels are indicated on the contour map following this page. They were prepared by the County Health Agency and consultant using the methodology defined in Appendix C. It should be noted that the generalized contour levels do not reflect certain events such as airplane flyovers, trains passing or other isolated events. The contours do, however, show clearly that freeway corridors generate more or less constant noise levels far above those of surrounding areas. Interstate 5 freeway south of the Old City area of Sacramento would show similar contour bands adjacent to it had construction been complete at the time the survey was done.



Specific Sources of Noise. Significant sources of noise affecting the City of Sacramento are automobiles, aircraft, railroads, powered gardening equipment, stereo sound amplifiers, musical instruments, power tools, air conditioners and compressors, and construction activities. Sound levels resulting from these and other common sources are shown in Table 3 supplied by Sacramento County.

Table 3

EXAMPLES OF SOUND
LEVELS FROM COMMON SOURCES

Decibel Level		Recommended Maximum Levels	Indoor Noise	Outdoor Noise
Uncomfortably Loud	130			
	120	Short term		
Very Loud	110	-Industrial Noise		
	100		-Rock Music Band	-Jet Takeoff at 1000'
Moderately Loud	90	-Eight Hour Industrial Noise		Jet Flyover at 1000'
	80		-Food Blender at 3'	Motorcycle at 50'
Lo	70		-Garbage Disposal at 3'	-Compressor at 50'
	60		-Shouting at 3'	Power Mower at 3'
Quiet	50	-Res. Prop. Line*(Day)	-Conversational Speech	Diesel Truck at 50'
	40	-Res. Prop. Line*(Night)	-Typical Business Office	-Average Traffic on Street Corner
Very Quiet	30	-Res. Int.** (Nighttime)		-Power Mower at 100'
	20			-Air Conditioner at 50'
	10			-Quiet Urban Daytime
	0		-Whisper at 5'	-Quiet Urban Nighttime
				-Quiet Suburban Nighttime
				-Quiet Rural Nighttime
				-Leaves rustling

* Residential Property Line

** Residential Interior

Source: Draft Environmental Impact Report for
Sacramento County Lone Star Use Permit,
December 18, 1974.

Domestic Noise Sources. The routine non-transportation activities of people also add greatly to noise pollution within Sacramento. Such fixed noise sources such as power mowers, hedge trimmers, chain saws, and construction activities produce excessive noise levels between 60 and 75 decibels. Examples of some of the fixed and mobile noise sources and levels surveyed in Sacramento County are shown in Appendix D. Surveys conducted for the Sacramento County Health Agency by the Sacramento City Police Department and the Sacramento County Sheriff's Department reveal that the majority of noise complaints called in by citizens concern barking dogs or loud parties. Clearly, these sources do not generate the most noise, but at the present time generate the most complaints.

Construction equipment can generate considerable noise, particularly on large public, commercial, or industrial projects. The argument is frequently made that noise from construction is temporary. This may be true for any one project, but in major commercial areas construction is an ongoing condition. Other non-residential noise sources are car washes and compressors; and sand and gravel extraction operations in industrial areas. Maintenance operations involving tree trimming shredders and water pumping equipment are often a significant source of noise during fall and winter seasons.

Transportation Noise Sources. Noise from transportation sources is the largest single category of excessive levels in Sacramento. The map on the following page identifies those transportation corridors and facilities for which noise contour data has been collected. Precised maps on these sources are available for review by the public through the Sacramento City Planning Department with the exception of the projected Ldn contours for Executive Airport which is shown as Appendix E. These contours were furnished by Sacramento Regional Area Planning Commission, and are slightly modified by the City Planning Department to make CNEL consistent with Ldn since these two are very similar in value. Caution should be taken, however, not to over-emphasize noise contours since they are merely tools to aid in analyzing a very complex phenomenon.




Diesel trucks on the freeways frequently exceed 80 dB at the edge of the right-of-way. Automobiles at freeway speeds are not quite as loud but can easily attain 75 dB. Motorcycles with poorly designed mufflers can exceed the noise output of either cars or trucks. The 1974 L10 (Ldn) data indicate that the 65 dB level extends outward into some areas of the community from the freeways and highways anywhere from 200 to 1600 feet. The 1995 projected contours indicate an even greater noise problem. Less intrusion is evident along sections that have sound barriers or which are either depressed or elevated. Furthermore, where there are on-ramps, the levels are higher because of vehicular acceleration.

Air transportation constitutes the largest single noise problem for many communities, particularly with large jet aircraft flying overhead. Fortunately, the City of Sacramento is in a better location than much of the development outside because of existing flight patterns. Both Natomas and Jensen airports have minimal noise pollution since their aircraft are mainly limited to agricultural activities. According to the County Department of Airports, the existing activity is insufficient to cause serious noise

INDEX MAP
FOR
TRANSPORTATION NOISE CONTOURS
IN
CITY OF SACRAMENTO

MARCH 1975

LEGEND

-  HIGHWAYS & FREEWAYS
-  RAILROAD
-  AIRPORT (EXECUTIVE AIRPORT)



problems. Executive Airport on the otherhand is the major general aviation facility in the greater Sacramento area and serves a small number of jet aircraft and helicopters, both of which are particularly noisy. The 1995 projected Ldn 65 dB contour line extends several blocks into residential areas on the northeast and a few blocks into areas on the southeast. The new Master Plan for Executive Airport will address this subject more thoroughly when it is prepared later this year; and the Airport Land Use Commission will be developing building standards for all new construction within the projected 65 dB contour lines.

Railroad trains operating at moderate speed on relatively level track produce noise levels approximately the same as those of a diesel truck at freeway speeds. Duration, however, of exposure to a train is somewhat different from exposure to a single truck. Equally obvious, the average person encounters far fewer trains than trucks in the course of a normal day. The frequency distribution of train-generated noise tends to be concentrated in the lower ranges, however, while these noises are harder to control they are also found somewhat less objectionable by most people. Yard operations on the otherhand are very different from line operations. While line operations produce the usual rumble and clickety-clack that most people are familiar with and expect, yard operations are generally carried on at a much lower rate of speed and produce sounds that have much greater potential for annoyance. Yard operations from Southern Pacific Railroad in the northwest section of the Old City are mostly surrounded by non-residential uses. Western Pacific Railroad's yard facility between the Riverside-Land Park and Oak Park communities has residential development adjoining it which has in the recent past generated noise complaints resulting in requests for mitigation by appropriate jurisdictions. Line operations along both companies trackage produce noise level contours of Ldn 65 dB which extend anywhere from 500 to 1500 feet into many sections of Sacramento.

NOISE CONTROLS

Alternatives. Most of the noise control alternatives involve the application of one or more of three preventive measures. These are (1) reduction at the source, (2) increased distance between the source and the human receiver, and (3) the provision of sound barriers and/or insulation. Attempts to control noise at the present time utilize all three approaches. The most effective but often the most difficult to achieve, however, is reduction of noise at the source.

The City of Sacramento is preempted from regulating most transportation noise sources by State and Federal jurisdictions. Interstate commerce provisions and statutes passed by Congress and the California legislature effectively preclude the City from regulating freeways, railroads and airports. While quiet trains and airplanes do not presently exist, some relatively quiet trucks and motorcycles have been produced. The City and other local jurisdictions should support State and Federal authorities in their actions to require quieter exhaust systems on all motor vehicles. Tread design modifications should also be encouraged which reduce undesirable tire noise.

The City can control certain aspects of transportation noise directly but less efficiently than at the source itself. Noise emanating from aircraft on the ground can be and is controlled to some extent by the locations designated for engine testing and by

deflectors or other muffling devices such as adjacent park or open space areas at the end of runways. These devices, however, do nothing to correct noise from overflying aircraft. In the case of railroad noise, noise emanating from yard or line operations can be reduced somewhat by erecting barriers along the rights-of-way wherever feasible and warranted. This has greatest potential in newly developing areas where this requirement should be made part of a subdivision map approval.

The City should also use this method of interrupting the transmission path of noise generated along freeways or other major highways. Masonry walls or other suitable barriers of appropriate opaqueness and height adjacent to freeways for example have the effect of reducing noise by between 5 and 15 decibels. The location and design of streets themselves should also reduce noise somewhat. Major streets in newly developing or projected growth areas should continue to be designed in such a way as to service neighborhoods and yet not penetrate them. Proper arterial signalization can often directly reduce traffic noise as well; and landscaping, if properly planned, has an indirect psychological effect of reducing the impact of noise. Planning for new commercial and industrial uses which generate high volumes of truck traffic should emphasize the advantages of direct access to major streets that are removed from residential areas of the City. Enforcement of nuisance laws related to noisy mufflers or operation of some vehicles in non-designated areas can and do provide further positive benefits to the community-at-large.

Nearly all fixed mechanical or construction equipment can be made quieter. Some equipment needs nothing more than better muffling devices. Walls around certain types of sources such as air conditioner and compressor units should also be utilized. Both pile drivers and jackhammer compressors used in construction work now have modifications which reduce the noise level and at the same time accomplish the work without adverse effects. One control alternative for mitigating these and other construction source noises is to set and enforce measurable standards for construction projects, equipment purchase contracts, and other contracts let by the City.

Another large area of noise control affects domestic noises related more closely with residential area. Air conditioners, loud music, swimming pool pumps and other noise sources should be effectively regulated by ordinance. Enforcement of such an ordinance is an important consideration obviously.

Finally, insulation of the receiver can substantially reduce the noise level. Workers in extremely noisy environments should or are required to wear protective equipment, especially around industrial noise sources. Homes and offices should be constructed in such a manner as to reduce outside noise. A typical dwelling unit reduces the noise level being transmitted from outside the structure by about 20 decibels. Additional insulation can increase this level of reduction by as much as 40 decibels. The additional construction costs may be warranted in some particularly noise sensitive areas such as residential units adjacent to freeways or nuisance producing industrial uses.

NOISE LEVEL POLICY STANDARDS

Numerous studies of human reaction to noise and its correlation with certain activities and land uses have led to a variety of empirical noise standards. These standards vary with the objective desired; e.g. criteria for a community can be predicated on the injurious effects of noise, or based upon the level at which complaints become too frequent. Practical considerations also dictate that standards should be set at levels which can be effectively and efficiently administered, which are acceptable to the community-at-large, and which do not produce excessive costs which are passed on to the resident or user of the community. Whatever the standards finally selected by the community, it is implied that appropriate measures will then be taken to enforce them.

Present levels of ambient noise in this community, as previously discussed, are in some cases too high and should be reduced if possible. It is believed that the City of Sacramento should establish noise level policy standards based on certain criteria. The first criterion is that the detrimental effects of noise, as also previously discussed, should be considered in setting this community's standards. It should also be a criterion that noise level standards should be pervasive in the sense that these cover the entire City and follow the general relationships of noise to land use and human activity, i.e. residential levels should be lower than commercial levels, and commercial levels should be lower than industrial levels. Finally, and perhaps most importantly, it is believed that the noise level policy standards set by the City of Sacramento should be applicable for the 1975-1980 period. They should also be reviewed annually and revised each time the General Plan for Sacramento is updated.

Existing Standards. Some noise level standards in the form of adopted regulations are presently in existence. The most relevant of these pertain to construction of structures and their placement for financing purposes. Article 4 of the California Administrative Code, Title 25, Chapter 1, Subchapter 1, sets forth provisions establishing noise insulation performance standards for new hotels, motels, apartment houses and dwellings other than detached single-family dwellings. Prescribed interior noise levels in noise critical areas shall not exceed a peak level of 45 decibels slow response in sleeping rooms and 55 decibels slow response for other habitable rooms. Residential structures located near airports and within annual CNEL contours of 60 decibels (CNEL and Ldn values are very similar) require an acoustical analysis showing that the structure has been designed to limit intruding noise to the foregoing prescribed allowable levels once the noise element of a general plan is adopted by a jurisdiction. Residential structures located within a noise contour of 65 decibels or greater, or when not available, within 1000 feet of an existing or adopted freeway, expressway, parkway, major street or through street or within 3000 feet of a railroad require an acoustical analysis showing that the structure has been designed to limit intruding noise to the preceeding interior noise levels also. The same conditions apply to residential structures within 1000 feet of an industrial zone boundary.

FHA loan applications administered by the Department of Housing and Urban Development are also reviewed against interim noise standards which have been in existence since 1971. Under these standards new and rehabilitated residential construction is financed based on specified exterior and interior noise levels. Along freeway corridors in Sacramento, this generally has the effect of requiring barriers between

the property in question and the freeway.

Land Use Sensitivity. There is a close relationship between land use and the level of noise which is tolerable. Residential neighborhoods are expected to be quieter than industrial areas. Some land uses are relatively unaffected by noise, while others are greatly affected. The various land uses can be divided into three categories according to noise sensitivity.

Insensitive Land Uses--The noise level does not detrimentally affect the operation of a particular activity. A wide variety of uses can be placed in this category including some non-urban uses, transportation systems, and wholesaling/manufacturing uses.

Moderately Sensitive Land Uses--Some degree of noise control must be present if these activities are to be successfully carried out. Included here are mostly medium intensity urban land uses.

Sensitive Uses--Lack of noise control will result in many of the effects described earlier in this element. This category primarily contains urban land uses that are associated with non-working activity and places where quietness is essential.

A successful noise abatement program requires that standards be established which are easy to interpret and relatively easy to measure with available equipment. Furthermore, these standards should closely relate major land use activities with uses that fall under the three sensitivity categories described above. Examples of various land uses in each noise sensitivity category are as follows:

Table 4

LAND USE SENSITIVITY

<u>Insensitive</u>	<u>Moderately Sensitive</u>	<u>Sensitive</u>
Horticultural, grazing lands	Assembly, meeting halls	Single-family residences
Wrecking, salvage yards	Community centers	Apartments
Manufacturing plants	Theaters	Mobile home parks
Transportation terminals	Cemeteries	Motels, hotels
Outdoor amusement facilities	Water areas	Schools
Mineral extraction and processing plants	Retail stores and service facilities	Libraries
Utility, communication facilities, substations and yards	Open space parkstrips	Churches
Undeveloped land	Neighborhood parks	Hospitals
Wholesaling and warehousing facilities	Sports arenas	Nursing, convalescent homes
	Amphitheaters	
	Office buildings	

The above listings indicate only the sensitivity of the use to noise, not how noise emitted from the use itself affects surrounding uses. It is also important to reiterate that the above land uses are illustrative and generalized examples only and are not intended to be for application in specific project evaluations that may be considered before the City Planning Commission or City Council.

Land Use Compatibility Standards. The following Land Use Compatibility Chart for Community Noise establishes desired ranges of L_{dn} levels for Sacramento within the 1975 - 1990 period:

Table 5

LAND USE COMPATIBILITY FOR COMMUNITY NOISE

LAND USE	NOISE LEVELS AND LAND USE IMPLICATIONS										
	Ldn	45	50	55	60	65	70	75	80	85	
AGRICULTURAL-RESIDENTIAL, RESIDENTIAL CATEGORIES & MOBILE HOME PARKS				A			B		C		
TRANSIENT LODGING-MOTELS, HOTELS				A			B		C		
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING & CONVALESCENT HOMES				A			B		C		
ASSEMBLY AND MEETING HALLS, ENTERTAINMENT CENTERS, COMMUNITY & CULTURAL CENTERS					B				C		
OPEN SPACE PARKS, WATER AREAS, CEMETERIES & AGRICULTURE				A					B		
RECREATION AREAS, PLAYGROUNDS, & GOLF COURSES				A				B		C	
SPORTS ARENAS, AMPHITHEATERS & AMUSEMENT CENTERS					B				C		
OFFICE BUILDINGS-PERSONAL, BUSINESS, PROFESSIONAL SERVICES				A			B		C		
COMMERCIAL-RETAIL, MOVIE THEATERS, RESTAURANTS				A			B		C		
COMMERCIAL-WHOLESALE & SOME RETAIL				A			B		C		
INDUSTRIAL, TRANSPORTATION, UTILITIES, COMMUNICATION				A			B		C		



SATISFACTORY; NO SPECIAL REQUIREMENTS.



USE SHOULD BE PERMITTED ONLY AFTER CAREFUL STUDY & INCLUSION OF PROTECTIVE MEASURES IF NEEDED.



USE SHOULD BE DISCOURAGED. IF PERMITTED, NOISE REDUCTION MEASURES MUST BE TAKEN.

NOTE: NOISE INSULATION FEATURES FOR NEW CONSTRUCTION SHOULD BE SUCH THAT AN INTERIOR L_{dn} OF 45 dB WILL BE ACHIEVED IN AREAS WHERE PEOPLE SLEEP.

Table 5 should be approached as a tool to evaluate the impact primarily of noise levels from the surrounding uses on a proposed use. Other tools exist to help evaluate impacts of proposed uses on the surroundings. Nonetheless, a proposed use which clearly generates noise louder than the "A" levels in Table 5 certainly would suggest a need for careful review.

Freeway Noise Standards. When any boundary line of a proposed subdivision or property where entitlement to use is requested abuts upon a freeway or designated freeway route, the California Department of Transportation's predicted 1995 L10 noise levels shall be compared with the design noise levels presented in Table 6 of this policy.

If the predicted 1995 L10 noise level at a line located fifteen feet (15') from and parallel to the subdivision/freeway boundary exceeds the noise standard specified in Table 6 for the intended land use category, then a suitable sound attenuation barrier shall be constructed along the boundary line of the freeway or designated freeway route.

A suitable barrier wall shall be concrete, masonry or other material, approved by the City Engineer, having a minimum surface weight of 3.5 pounds per square foot. Said wall shall be structurally stable in accordance with Section 2302 of the Uniform Building Code, and shall be aesthetically pleasing and be of sufficient durability to have a minimum 40 year service life. The height of a suitable barrier shall be that height, as determined by U.S. Department of Transportation's Barrier Nomograph Form No. 53120, required to reduce the predicted 1995 L10 noise level, as described above, to the design level specified in Table 6, but in no case will it be required to be higher than twelve feet (12') from the ground surface to the top of the wall. Earth mounds constructed in a manner approved by the City Engineer will also be considered suitable sound attenuation barriers. A combination of earth mound and barrier wall will be suitable provided both components meet all the requirements of this policy.

Table 6
DESIGN NOISE LEVEL/LAND USE RELATIONSHIPS
FOR MITIGATING FREEWAY NOISE

<u>Land Use Category</u>	<u>Design Noise Level -L10</u>	<u>Description of Land Use Category</u>
A	60 dBA (Exterior)	Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in categories A and B above.

The above freeway noise standards shall not be applicable where the expressed design levels in Table 6 can be obtained at the closest building wall oriented towards the freeway right-of-way line.

The foregoing freeway noise standards shall take precedence over those exterior levels expressed in Table 5 wherever proposed projects are primarily affected by freeway noise.

No specific noise mitigation standards are proposed for noise sensitive land uses abutting railroads since the frequency and nature of line activities as well as the trackage design features do not lend themselves to uniform standards. Standards for each situation will be evaluated on an individual basis.

OTHER POLICIES

Noise Abatement Policies. The following noise abatement policies are recommended for adoption in addition to the noise level policy standards set forth above:

- 1 - Give high priority to the preparation and adoption of a comprehensive noise ordinance. Said ordinance should be coordinated with the County of Sacramento, and implemented by the appropriate agency on a County-wide basis.
- 2 - Continue to request and support stronger State and Federal legislation to require reduced noise generation from sources under those jurisdictions. Progress should be reviewed annually by the City Council working jointly with the County's Board of Supervisors.
- 3 - Report annually to the City Council on progress being made in lowering noise levels in the City to those noise level standards set forth in this Element for the 1975-1980 period. Said annual reports should include recommendations for further measures as laws and technology permit.
- 4 - Review and update the Noise Element thoroughly and comprehensively every five to seven years as part of the General Plan update process.
- 5 - Continue to periodically review and update subdivision and zoning regulations which encourage the reduction of noise through better site design and building location.
- 6 - Set and enforce measurable standards for noise reduction and control on construction projects, equipment purchase contracts, and other related contracts let by the City. The County Health Agency and the City Engineering Department should cooperate in implementing this policy.
- 7 - Continue to enforce nuisance laws and the California Vehicle Code related to the control of noisy mufflers and the operation of off-road vehicles.
- 8 - Support and lend assistance as needed to the County Department of Airports in its effort to update the Executive Airport Master Plan, particularly as the Plan relates to noise attenuation measures and the noise impact on surrounding land uses.

- 9 - Give consideration to new major streets in developing areas of the City as part of the community plan update process, and locate and design them consistent with appropriate community planning principles in such a manner as to service but not disrupt noise sensitive land use areas.
- 10 - Give consideration to the location and design of proposed land uses abutting transportation facilities in newly developing areas of the City as part of the community plan update process by specifying needed noise mitigation measures for specific areas and placing less noise sensitive uses next to the transportation source wherever appropriate from a community planning standpoint.
- 11 - Request that the California Department of Transportation give priority and financial allocation to the construction of noise attenuation barriers in noise sensitive areas abutting freeways within the City which were developed or under development prior to or concurrent with freeway construction .
- 12 - Require as a condition of subdivision map approval that all new development on properties abutting railroads or freeways provide suitable sound attenuation barriers to reduce intruding noise to the applicable exterior noise level standards of this Element.
- 13 - Review proposed development projects affected by railroad generated noise on an individual basis, and require appropriate noise barriers wherever feasible.
- 14 - Give consideration to the noise producing aspects of a non-residential development that is being proposed adjacent to a residential area, and require appropriate noise mitigation measures as a condition to approval of entitlement to use.

ADDENDA TO GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

The following addenda to the General Plan Environmental Impact Report are a result of the completion of the Noise Element of the General Plan. When adopted, these sections will be added to the Final EIR.

I. Description of Project, Environmental Setting & Impacts

The text of the General Plan for Sacramento, California (Section 1 and Section 12 - EIR) adequately describes the location, purpose and scope of the Noise Element with the exception of the following statements: This section is designed to serve as the environmental impact report for Section 9, Noise Element of the General Plan for Sacramento, California. It, with Section 12, fulfills the requirements of the California Environmental Quality Act, and is subject to the normal review procedure for an Environmental Impact Report.

II. Aesthetic and Nuisance Conditions

Aesthetic and nuisance conditions in Sacramento are specifically discussed in the Noise Element, pages 5 through 11.

Impact

From an environmental standpoint, the Noise Element is believed to have a beneficial impact upon the Sacramento community since specific mitigation measures to reduce noise are set forth in the standards and policies sections, pages 12 through 17.

Potential nuisance conditions can be anticipated from increased usage of transportation sources and other sources as discussed in the Noise Element on pages 5 through 11. However, appropriate mitigation measures for its reduction are recommended in the policies on pages 16 and 17.

III. Analysis of Impacts and their Disposition

A. Mitigation Measures Proposed to Minimize the Project

The Noise Element of the General Plan is an amalgam of mitigation measures to avoid the detrimental effects of increased transportation noise and other noise sources. As such, they introduce a number of potentially beneficial impacts of their own. These are discussed throughout the Element.

1. The Noise Element proposes a series of policies intended to reduce noise levels. It establishes a set of noise standards for Sacramento land use districts categories to encourage an improvement in quality of the environment.

2. The Noise Element encourages control of land uses abutting transportation noise sources. It encourages subdivision and zoning regulations to be modified to provide for proper site design and building location where noise sensitive uses are located adjacent or close to transportation sources, and to separate noise sensitive land uses from proximity to traffic sources.
3. The Noise Element will indirectly affect energy conservation measures to varying degrees where modification of mechanical noise sources themselves are recommended; and will indirectly be beneficially affected by increased structural insulation standards now required by AB 1575.

B. Alternatives to Project

1. No Project:

This alternative is infeasible in that the subject Noise Element is mandated by State law as set forth in California Government Code Section 65302(g). In the event that the City Council could choose a no action alternative, the effect would be the continuation and possible increase of ambient and specific source noise levels in Sacramento as described on pages 5 through 11 of the Noise Element. Thus, no project would have an adverse impact upon the environment in the City of Sacramento.

2. Reduced or modified project:

A reduced project could propose less stringent noise level standards and policies for the City of Sacramento; a modified project could propose more or less stringent noise standards and policies.

The impact of more stringent noise level standards and policies than proposed for the City of Sacramento would probably:

- a) further decrease the number of humans experiencing hearing loss;
- b) further decrease the number of humans experiencing extra-auditory physiological effects;
- c) further decrease the number of humans experiencing speech interference;
- d) further decrease the number of humans experiencing the interruption of sleep;
- e) further increase the cost to developers and builders of erecting noise barriers and insulating structures, this cost in turn being passed on to the consumer;
- f) further increase the cost of governmental services by requiring additional staff to refine initial programs and enforce other programs in the implementation sections.

The impact of less stringent noise level standards and policies than those proposed for the City of Sacramento would probably:

- a) provide only limited or insignificant change in the physiological and psychological negative effects previously mentioned above.
- b) reduce slightly the additional costs of governmental services required to implement the proposed policies.
- c) reduce slightly the additional costs ultimately borne by the consumer in providing new development where necessary with less stringent or no noise barrier and/or structure insulation.
- d) continue to create less economically stable areas adjacent to high impact noise sources, thus perpetuating high vacancy rates and vandalism.
- e) continue to sustain the frequency of noise complaints from non-domestic sources.

C. Adverse Impacts Which Cannot be Avoided if the Project is Implemented

- 1. Increased cost to the City of Sacramento for implementation and enforcement of proposed noise standards and policies.
- 2. Increased cost to developers to construct noise barriers; increased cost to builders to install noise insulating materials.
- 3. Increased cost to home buyers as well as commercial and industrial occupants due to increased cost of construction.
- 4. Minor disruption of vegetative and wildlife environment where exterior noise barriers are required.

D. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Implementation of the proposed Noise Element is required at this time by State mandate. The reduction of noise by means of the expressed standards and policies will protect the urban environment for present and future residents. Long-term productivity for man and his urban land uses will be increased because of the reduction of harmful and distracting noise, and the more uniform distribution of noise-free neighborhoods and communities. This should have the long-term effect of stabilizing property values as well. On a much narrower scale, however, implementation of the Element will improve the living environment but may disrupt the economic status quo of the construction industry and buyer/user habits as these relate to noise generating consumer products. The present mandated Element and its attendant policies which call for many short-term changes in the environment and economy must be weighed against the long-term advantages of a relatively noise-free city.

E. Irreversible Environmental Changes Which Would be Involved in the Proposed Action Should it be Implemented

The proposed action will require the increased use of non-renewable resources, however, will be indirectly offset by the increased structural insulation standards now required by AB 1575; and the use in some instances of increased structure setback requirements and landscaped berms.

F. Growth Inducing Impact

The Noise Element may tend to slow growth adjacent to freeways and other primary noise sources inasmuch as builders may choose to build elsewhere due to potential increased costs associated with noise attenuation measures. On the other hand, the Element may also act as an incremental attraction to presently noise-impacted areas of the City if there is a high enough demand for developable land that is relatively free of noise pollution.

IV. Public Policies, Laws and Regulations Related to the Project

In addition to those items listed in Chapter 12, the primary law related to the Noise Element is found in the regulations of the California Administrative Code, Article 5 of Chapter 3 of the California Government Code. Section 65302(g) requires that "a noise element in quantitative numerical terms, showing contours of present and projected noise levels..."

V. Organizations and Persons Consulted

Organizations, persons and documents consulted in the preparation of this EIR can be found in the bibliography of Noise Element.

This EIR was prepared by

Sacramento City Planning Commission
City Hall, Room 308
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APPENDIX A

DEFINITIONS

- Acoustics - (1) The science of sound, including the generation, transmission, and effects of sound waves, both audible and inaudible. (2) The acoustics of an auditorium or of a room, the totality of those physical qualities (such as size, shape, amount of sound absorption, and amount of noise) which determine the audibility and perception of speech and music.
- Ambient Noise or Sound - The level of noise or sound that is all-encompassing within a given environment, being usually a composite of background sounds from many sources near to and from the observer. No specific source is singled-out in the ambient level.
- Community Noise Equivalent Level (CNEL) - The CNEL relates various A-weighted measurements (dBA) to the duration of the sound, the time of day during which it occurs, the total number of such events, and the probable community reaction. It is a combination of separate daytime, evening, and nighttime equivalent noise levels with weighting factors applied to evening and nighttime values. (Also see Appendix B.)
- Contour of Noise or Sound - A line on passing through points where the same sound intensity level prevails. Contours form bands of varying widths emanating from a noise source.
- dBA (Decibel A Scale) - The unit for measuring sound levels. Decibels are arrayed on a logarithmic scale so that while ten decibels is ten times more intense than one decibel, twenty decibels is one hundred times more intense, and one hundred decibels is ten billion times more intense than one decibel. Such a scale is needed because the human ear detects a wide range of acoustic energy. (A) scale is the sound measuring scale that most closely correlates with the loudness of sounds as perceived by the human ear. (Also see Appendix B.)
- Frequency - The time rate of repetition of a periodic phenomenon. In sound, this time rate is known as cycles per second, or hertz.
- Intensity of Sound or Noise - A measure of the loudness of sound or noise which is the rate of energy transmitted in a specific direction per unit area normal to that direction.

L_{dn} Noise - Similar to CNEL noise. (See Appendix B.)

L₁₀ Noise - The statistical noise level given in terms of the value of the noise which is exceeded for ten percent of the time period during which the measurement was made. (Also see Appendix B.)

Noise - Any undesired or unwanted sound, usually of different frequency or intensity resulting in an objectionable or irritating sensation.

APPENDIX B

DESCRIPTION OF TYPES OF NOISE MEASUREMENT USED WITHIN NOISE ELEMENT FOR SACRAMENTO

Decibels (dB)

Decibel measurements were recorded on sound level meters placed in the field at strategic locations by the acoustical engineering firm of Wilson, Ihrig & Associates in order to determine both ambient and specific noise levels throughout Sacramento County.

"Decibel" abbreviated "dB", is a term having several definitions, all referring to a logarithmic ratio of two quantities. For our purposes in measuring sound, the definition is:

$$\begin{aligned}\text{SPL (Sound Pressure Level) in dB} &= 10 \log \frac{P^2}{P_o^2} \\ &= 20 \log \frac{P}{P_o}\end{aligned}$$

where P = sound pressure in question

and P_o = reference sound pressure, by
conventional .0002 microbars

The level chosen for P_o is generally considered to be the softest sound perceivable by a healthy young ear. The human ear can detect sounds with pressure level differences of magnitudes exceeding 10^{12} , so that the numbers would become very unwieldy unless logarithms were used.

The decibel notation provides a reasonable approximation of the response to sound intensity of the human ear, but must be modified to provide for the ear's frequency response characteristics. Many different modifications exist, but the most common, and one which does one of the best jobs at moderate sound levels, is the "A" weighting. A decibel reading on a meter using the "A" scale is abbreviated "dBA". This scale compensates fairly well for the lower sensitivity at high and low frequencies of the human ear. Unfortunately, decibels only take care of part of the sound description problem. All sounds obviously have duration as well as intensity, but the dB notation does not provide for this time distribution; however, a number of systems have been developed to remedy the situation.

Community Noise Equivalent Level (CNEL)

This is a rating technique currently used by the California State Department of Aeronautics for assessment of aircraft noise around the states major airports. The CNEL scale was developed as a scale which would include all important factors relative to community noise, yet be amendable to field measurement performed with a simple level meter.

The total noise exposure for a day is specified by the community noise equivalent level (CNEL) in dB, and may be expressed as:

$$CNEL = 10 \log \frac{1}{24} \left[\sum_{10} \frac{NL_D}{10} + 3 \sum_{10} \frac{NL_E}{10} + 10 \sum_{10} \frac{NL_N}{10} \right]$$

Where: NL_D = weighted peak sound level for each daytime hour
between 0700 to 1900

NL_E = weighted peak sound level for each evening hour
between 1900 to 2200

NL_N = weighted peak sound level for each nighttime hour
between 2200 to 0700

Day-Night Average Level (L_{dn})

A new composite noise scale is widely being recognized for specification of community noise from all sources, and is recommended by the U.S. Environmental Protection Agency and the State Office of Noise Control. It is called the Day-Night Average Level, and is nearly the same as CNEL except that the weighting for the evening time period in CNEL is eliminated and the "day" extends from essentially 0700 to 2200 while the "night," with a 10 dB weighting penalty, extends from 2200 to 0700.

The total noise exposure for a day is specified by the Day-Night Average Level (L_{dn}) in dB, and may be expressed as:

$$L_{dn} = 10 \log \frac{1}{24} \left[\sum_{10} \frac{NL_D}{10} + 10 \sum_{10} \frac{NL_N}{10} \right]$$

Where: NL_D = weighted peak sound level for each daytime hour
between 0701 to 2200

NL_N = weighted peak sound level for each nighttime hour
between 2201 to 0700

The L_{dn} noise contours for line operations of the Southern Pacific Railroad in the Sacramento area were developed by the Sacramento City Planning Department utilizing the following information furnished by S. P.:

1. Wyle Laboratories Report WCR 73-5, Assessment of Noise Environments Around Railroad Operation, July, 1973
2. The physical characteristics and grade level of all tracks in the City.
3. The number of train movements; various speeds of line operations, and average length of trains running through the City.

It should be noted that the L_{dn} noise contours for Southern Pacific Railroad Facilities do not reflect actual field circumstances, but based on information furnished, it can be assumed that these developed contour lines are fairly reasonable in reaching some planning decisions. It also should be noted that in a letter dated October 1, 1974, from Southern Pacific Transportation Company, it stated: "We do not anticipate any change in operations in the future that would result in increased noise levels in your area." (City of Sacramento)

Statistical Levels (L_y)

Any of the statistical noise levels is given in terms of the value of the noise level which is exceeded for a stated percentage of the time period during which the measurement was made. The symbol for the noise level which is exceeded y percent of the time is L_y .

The most common measures utilized are L_{99} , L_{90} , L_{50} , L_{10} , and L_1 , which denote the value of the noise level which is exceeded 99, 90, 50, 10, and 1 percent of the time respectively.

APPENDIX C

METHODOLOGY USED IN PREPARING AMBIENT NOISE CONTOUR MAPS FOR SACRAMENTO

Following is an outline of the method used to prepare the ambient noise contour maps:

A. Preliminary Preparation

1. Before each measurement, check the battery condition of the sound meter. Replace battery - one size C alkaline battery for the GR 1565-A sound level meter - if necessary.
2. Frequent calibration should be made by using an acoustical calibrator.
3. Place the "windscreen" on the microphone for all the measurements.

B. Meter Reading Procedure

1. Set the sound level meter for the "slow" damping characteristics and to "A" weighting network for all readings, i.e. "A_s" on GR 1565-A sound level meter.
2. Observe the A-level reading for five (5) seconds and record the best estimate of central tendency and the range of the meter deflections.
3. Repeat the observations noted above until the number of central tendency readings equals or exceeds the total range (in decibels) of all the readings.
4. Find the arithmetic average of all the central tendency readings in (2) and (3) above, and call this estimate the community noise level for this particular time and location.

C. General Principles for Certain Unusual Situations

1. Measurements should not be made in weather conditions which may create a bias in the data. Examples of such weather conditions are:
 - a. Wind in excess of 20 mph regardless of the windscreen used.
 - b. Rain, sleet, snow or hail.
 - c. Thunder.
 - d. Wet streets or snow accumulations unless these conditions are typical for the community.
2. Measurements should not be made if significant changes in noise making activity or patterns occur during the sampling period. Examples of changes in noise making activities or patterns which affect the data are:

- a. Nearby noise sources such as powermowers, pavement breakers, brush cutters or power saws.
 - b. Changes in vehicular traffic flow such as closed streets, detours, or shift-change periods near industrial plants.
 - c. Airline or other transportation strikes.
3. Measurements should not be made if the following conditions exist:
- a. Vehicles entering, leaving or idling in a driveway and the measurement location is very close to the driveway.

The method described in this Appendix produces noise contours on an L_{50} basis (see Appendix A), thus, a contour labeled 55 dB on this basis would indicate that the 55 dB noise level was exceeded along that contour half the time. The L_{50} measurement results from the "central tendency" meter reading described in Section B of this Appendix C.

The contours on the ambient noise map on page 6 are expressed in L_{dn} for consistency with the compatibility chart and various transportation maps. Conversion of L_{50} to L_{dn} typically requires an addition of 5 to 6 dB to the L_{50} level. The L_{dn} contours on the map were modified by adding 5 dB to all the previous L_{50} level.

This conversion results in a generalized noise contour map for determination of ambient noise over broad areas. Specific noise generators, such as busy intersections, will create localized "sensitive" areas of noise. These maps are generalized, and does provide an overall noise pattern for Sacramento County.

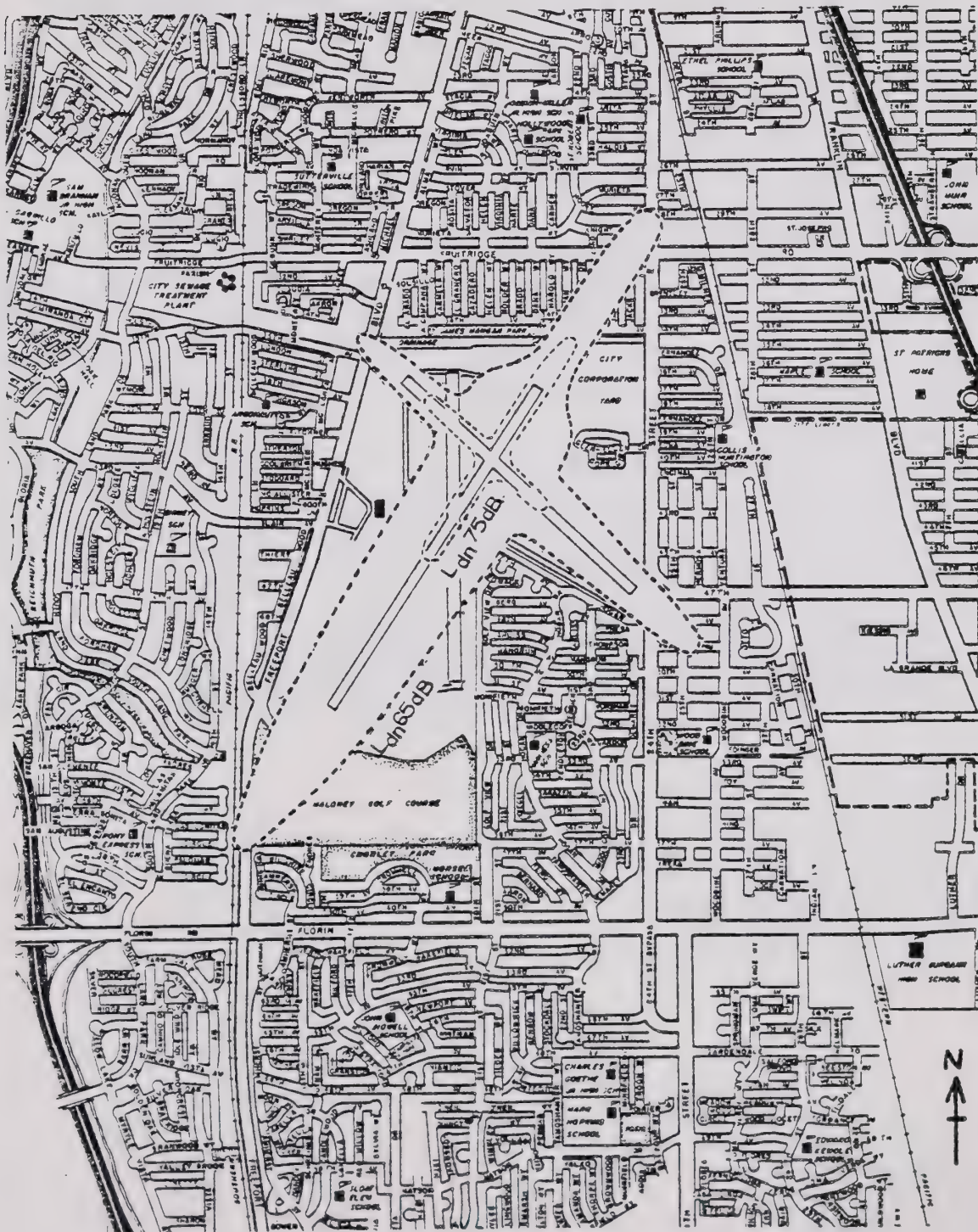
APPENDIX D

EXAMPLES OF NOISE LEVELS FROM COMMON URBAN AND SUBURBAN SOURCES
(Actual measurements in Sacramento County)

<u>Freeway - 99 N-S</u>	<u>Average Noise Levels</u> dBA
25 feet from edge of pavement	75 - 80
1000 feet from edge of pavement	65 - 70
<u>Aircraft Flyover (Executive) Airport</u>	
Take-off, Lear Jet - 1000 ft.	98 at peak
Take-off, prop - 500 ft.	85 "
Take-off, Cessna Citation - 500 ft.	86 "
<u>Train</u>	
100 feet from track - train - 35 m.p.h.	75 - 85
100 feet from track - horn	85 - 95
100 feet from track - engine idle	65 - 70
<u>Municipal</u>	
Refuse Truck, 3 ft. from power take off engine	88 - 92
Storm Drain Pump Station - 5 ft.	67 - 78
Compressors - 5 ft.	85 - 90
Power Low Blow - 5 ft.	90 - 95
Water Well - 5 ft.	70 - 80
<u>Residential</u>	
Air Conditioner - 10 ft.	55 - 65
Passenger Car - 50 ft. from intersection	75 - 80
Lawn Mower - 10 ft.	85 - 90
Transformer (SMUD) - 5 ft.	45 - 50
Gas Generators - 10 ft.	80 - 85
<u>Household</u>	
Dish Washer	78
Vacuum Cleaner	75
Clothes Washer	75
Freezer Compressor	55
Garbage Disposal	75
Kitchen Exhaust Fan	65
Hair Dryer	65
Food Blender	74

APPENDIX E

PROJECTED L_{dn} NOISE CONTOURS FOR EXECUTIVE AIRPORT



SOURCE: Sacramento Regional Area Planning Commission
Airport Land Use Commission
Policy Plan

July, 1974

COMMUNITY DESIGN ELEMENT

SECTION TEN

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

COMMUNITY DESIGN ELEMENT

GOALS

- 1 - Emphasize and promote the overall visual attractiveness of Sacramento.
- 2 - Help preserve those historic resources which add to Sacramento's heritage.
- 3 - Enhance the individual neighborhoods and communities by providing an environment that encourages a sense of pride and identity among its residents.
- 4 - Support programs which improve the physical characteristics of the City so that Sacramentans will be provided with a desirable environment in which to work and live.

INTRODUCTION

Background. The City of Sacramento has experienced physical change over the years, having expanded and become part of a larger metropolitan urban area. Some of the old has been replaced by the new, programs having been undertaken to eliminate blight and deterioration. The City has endeavored to enhance its image as a State Capital. These changes have served to produce an increased awareness of the visual aspects of the City. Community design is thus an important element of the City's continuous long-range goals.

The Community Design Element for Sacramento is not mandated by law, but is believed to be an essential part of this City's General Plan process. Incorporated into this element as a result of California Government Code Section 65302(h) enacted in 1971 are provisions to meet the requirements of a scenic highway element.

Purpose and scope. To establish a basis for understanding Community Design, what it is, and why it is so important, the following quote from the Urban Design Plan for the City of San Francisco seems appropriate:

"Urban Design is not just academic discipline, or a pastime for visionary planners and architects. Neither is it wholly oriented to physical things rather than to people and their experiences. It has to do, above all,

with the visual and other sensory relationships between people and their sense of well-being. Application of good urban design produces a logic and a cohesion in a physical theme of the city, and a respect for the salient features that give character to the city and its neighborhoods. It is concerned with both preservation and development and not with one to the exclusion of the other. It teaches that man can do great things in cities."

With this framework in mind, the design element will be used: (1) to establish working objectives to guide the City of Sacramento whose operations and decisions affect community design, and (2) as an educational reference tool for the general public in order to encourage greater participation, awareness and objectivity in promoting good community design and progressive planning. Thus, this element will be oriented towards policies and program implementation.

Citizen participation. If a plan is to be useful and its impact significant, it must be responsive to its residents' needs. One of the principal efforts in developing this element involves the identification of relevant design issues that have been suggested by Sacramento residents and users. Initial public hearings in 1973 on the first preliminary draft of Sacramento's General Plan served as an important source for citizen input. It was at this time when strong concern was expressed for a community design element which would enunciate programs and policies to improve the general quality and visual form of the City. Many of these statements and ideas were considered and incorporated herein.

THE COMMUNITY DESIGN PLAN

The visual image. Sacramento's location within the Central Valley of California, surrounded on the east by the Sierra Nevada Mountains which rise to a height of more than 10,000 feet and on the west by the Coastal Mountain Range, provides a majestic setting and strategic urban location. Its placement at the confluence of the American and Sacramento Rivers also makes unique urban forms possible.

The image of Sacramento is perceived in several dimensions. The sequence depends on whether one enters or leaves the urban limits. The continuous flow of urban form with occasional interruptions of open space contains both generalized areas and isolated physical features which are perceived by the

individual negatively, positively, or not at all. All of these, however, give a form and shape to the City. Among the more common city-scape features perceived by the individual are:

Buildings and structures. Clustering of buildings and structures gives character to a district, and provides a reference point for human orientation and activity. Some of the prominent clusters include the State Capitol complex, the Central Business District, the Sacramento Medical Center, the State and City university and college complexes, and certain residential developments. Elsewhere, the dominant features of man-made development are unique architecture, color, texture and shape of individual buildings and structures.

American River Parkway and other waterways. The Sacramento and American Rivers are both focal points and boundaries for Sacramento. They provide reference points for human orientation and activity, and contribute significantly to the general character of the local environment.

Streets and freeways. Thoroughfares often help unify the form of specific communities and neighborhoods by providing borders around their perimeter. Their placement can often serve as corridors along which an orderly and pleasant transition in the city-scape can be perceived.

Vegetation. Probably the amenity most characteristic of Sacramento, and most admired and loved by visitors as well as by residents, is the magnificent shade tree population. This and other vegetation is largely made possible through the abundance of relatively inexpensive water supplies and the City's street tree plant programs.

Historically significant areas. The sequence of time in a historical development context should be emphasized in the visual image of Sacramento. Attempts should be made to encourage new structures to adapt to the already existing desirable structural amenities of developed areas which are historically significant.

Open space and parks. These green patterns enrich the City by providing color and texture contrast, and by aiding in the identification of neighborhoods and other special districts. Public parks and recreation areas provide visual amenity and points of central focus. These features help

break up an otherwise large and sometimes monotonous city into units units that are visually and psychologically appealing.

Preservation of past heritage. Within Sacramento, there are areas and buildings that contribute positively to its colorful and rich past. Many of these features date back to the City's early settlement. Over time, these features have provided residents with relief as contrasted with the crowding and stresses often associated with more modern living patterns. As Sacramento continues to grow, the preserving of that which is old and irreplaceable may be as much a measure of human achievement as the building of new innovative physical features.

Special areas: Special areas and structures linking residents with the past should be preserved and used as resources for education, recreation and human enjoyment. These are:

Old Sacramento. This unique area located along the river-front of downtown Sacramento was the center for most of the early commercial activities. Today, this relatively historic area is undergoing complete rehabilitation, so the City's past heritage can be maintained for the young and old to enjoy.

Sutter's Fort. When Captain John Sutter laid out the town of Sacramento, then New Helvetia, it became the first outpost of white civilization in Central California. This was the western terminal of the wagon trains of the early pioneers to the west. Today, the Fort is a main tourist attraction and a national landmark in California's heritage.

Original Sutter Plat. Laid out by John Sutter in 1848, this central city area contains a distinct urban pattern. Development in the area should be designed to integrate with and embellish this unique sector of Sacramento's urban development and to recognize this early plat as visually different from other Sacramento areas.

Significant residences: Preservation of older residential structures regardless of their historic affiliation could and does provide a richness of character, texture and human scale that is unlikely to be repeated in new development. Many of these are already established landmarks and points of interest that contribute to the image of Sacramento.

Governor's Mansion. This large Victorian structure, with a remarkable past heritage, is located on the corner of 16th and H Streets. It was built in 1878 and later purchased by the State in 1903. The structure adds character and personality to the neighborhood and is a focal point of local interest as well as for visitors from places well beyond Sacramento.

Stanford Home. Dignified and dominant, the Stanford-Lathrop Memorial Home stands in four-storied Victorian elegance at the corner of 8th and N Streets, a sharp contrast to the steel and stone geometry of the adjacent high-rise State Resources Building. The building was completed in 1871, and was donated to the Roman Catholic Diocese of Sacramento in 1900. Some of the original furnishings remain and it is one of Sacramento's oldest residences.

Crocker Art Gallery. This was the home of Judge Edwin Bryant Crocker. It was built in 1869 and purchased by Sacramento in 1911. All of the Crocker Family were avid art collectors and the gallery appropriately stands next to their home. The home site is historically significant and reflects the charm and elegance that once prevailed.

Victorians. This general classification of homes constructed between roughly 1870 and 1910 encompasses the many residences which are scattered throughout Sacramento and especially the Old City. Many of them are of historic and/or architectural merit. The dignity of age reminds the viewer of a rich, though somewhat neglected, historic heritage. Properly restored, these homes add character and stability to a neighborhood.

Our neighborhoods and communities. The practice of creating and promoting cohesive neighborhoods and communities has long been a part of the planning function throughout the United States. Human needs begin close to home, and aggressive outreach programs to stabilize existing healthy neighborhoods and communities and reconstruct those that are deteriorating is a continuing concern of government.

Composition and purpose: A neighborhood is an area generally bounded by major streets or other narrow linear man-made features. It is designed to discourage adverse influences such as penetration of through traffic, undesirable land use mixes, or unrelated service functions. These neighborhoods contain space

for recreation, schools, local shopping facilities, related utilities and an internal circulation system designed primarily to serve those residents living within. In Sacramento's Neighborhood Analysis reports, neighborhoods are identified and conditions of their physical environment are discussed. Many of these neighborhoods possess long-established traditions and individual qualities which contributed to their residents' confidence and sense of stability. While this phenomenon applies to most of the neighborhoods in Sacramento, some have deteriorated over time due to economic and social factors.

A community, on the other hand, is generally a combination of adjacent neighborhoods with similar features or composition. Common boundaries are major arterial streets and highways, natural features or man-made barriers. Large parks or shopping centers often serve as central nodes for community activities.

Sacramento is divided into twenty-six community planning areas in order that attention can be focused on city sub-units which are manageable for planning purposes.

Updating with citizen input: During the sixties, the Planning Department prepared community plans for all areas of the city which were experiencing, or had experienced, substantial growth. While part of the General Plan, they are more precise in terms of land use, circulation, public facilities, park and recreation facilities and general neighborhood conditions. Many of these communities, however, have experienced change which render their community plans less useful and out-of-date. For this reason, their updating is recommended as a priority planning project. To assure continued public participation in this project, citizens of the various neighborhoods and communities throughout the City will have an opportunity from the beginning to express their feelings on community plan boundaries, priorities for completion of individual community plans, community goals and plan alternatives.

Problems: Certain problems of urban design are distinct to the communities or neighborhoods in which they are found. Often, programs and policies intended to remedy adverse situations require an assessment of constraints unique to the particular city area. Some of the more pressing problems that will be dealt with when a comprehensive updating of the City's community plans occur are briefly discussed below:

Deterioration. Deterioration adversely affects a community or neighborhood beyond the commonly understood reasons by attaching an undesirable perception of that area. This has the effect of retarding desirable improvements.

Parcelization. In the City of Sacramento there are some lots which currently present problems because they are abnormally deep and/or narrow. Old City forty-foot wide lots and deep lots found in the Oak Park, Fruitridge and Colonial communities are specific examples.

Circulation. The street/pedestrian/bicycle system often has a profound effect on the physical design of communities and neighborhoods. These should provide convenience and safety, but should also provide aesthetically pleasing channels of light and air with natural features such as trees or other landscaping. Planning new streets or improving existing ones should include provisions for enhancing the overall visual appearance of the neighborhood or community.

Parking. Street parking does not fulfill parking requirements by itself. Off-street parking is needed to serve business enterprises and public facilities and to expand the capacity of moving traffic within thoroughfares. Adequate and well designed off-street parking facilities therefore aid visual appearance, lessen traffic congestion, help maintain property values, and otherwise deter blight.

The City's future. Sacramento is very conscious of its visual appearance even though no formal design plan has ever been undertaken. Through the years, as the City has urbanized, developed, and matured, efforts have been made to promote better design through new methods.

Planning programs: A number of programs and planning tools are **presently** used. These include:

Planned unit development. This zoning device provides flexibility in design which is not normally available utilizing normal subdivision regulations. In most cases, structures are permitted to be clustered in such a manner as to create additional open space amenities. Several examples of PUD's exist within the City.

Subdivision Ordinance. Design standards in the subdivision ordinance are used to space individual lots to allow for

ready access to schools, parks, playgrounds, public transportation systems and shopping centers.

Zoning Ordinance. This important regulatory tool stipulates what land uses are permitted on all properties within the City, and what design or form these uses can take. The provisions are intended to encourage sound land use relationships and promote visual attractiveness.

Civic improvement districts. These areas serve as review zones for all new buildings which are proposed for construction in the vicinity of public facilities. This is accomplished through a seven-man committee which reviews proposed development within the Old City and within a 300-foot radius of all public facilities. These reviews attempt to integrate the projects sensitively with wise and thorough architectural practices.

Sign Ordinance. The sign ordinance sets forth controls on sign height, nature, and placement. It encourages design which is harmonious with the buildings and sites they occupy.

Street lighting. This program provides the means for accentuating the attractive aspects of the urban environment at the same time it provides safety of travel.

River parkway plans and controls. Measures are presently being developed to protect the scenic river corridors from encroachment by undesirable activities and land uses. The natural amenities which currently exist along both the Sacramento and American Rivers will hopefully be preserved to the fullest.

Redevelopment programs: A major physical problem in most cities is deterioration of its older or obsolescent structures. Some areas of Sacramento have also declined in vitality and appearance. Sacramento has attempted to correct these conditions through programs which are especially adapted to the individual area.

Neighborhood development projects. These are federal programs for rehabilitating traditional neighborhoods of Sacramento. Citizen participation in overall design and planning is emphasized. Del Paso Heights, Alkali Flats, and Oak Park are present project areas which are undergoing various stages of renewal.

Mall projects and community center. The K Street Mall, Capitol Mall and new Community Center complex are examples of projects which are intended to improve the visual appearance and viability of Sacramento's downtown business and shopping district.

Old Sacramento project. This downtown, riverfront development will preserve Sacramento's past heritage, and provide visual amenity in keeping the theme of "Old Sacramento."

Code enforcement programs. There are various code enforcement programs to correct deteriorating conditions in structures. These are intended to prevent or correct physical deterioration before it establishes a condition of blight in the various areas of the City.

Historic Buildings Ordinance. This device will provide a means for rehabilitating old historical units to enrich and promote the charm and character of the neighborhoods. These buildings represent the past heritage of the communities.

Other programs: Other important programs which Sacramento enforces to maintain the visual appearance of its neighborhoods and communities also exist. Street tree planting throughout the City provides color, beauty and visual attractiveness. Sacramento's Street Trees and Planting Areas plan should be reevaluated in light of today's needs. The street furniture program is another tool to promote the visual appearance of the physical elements which contribute to the amenities of the City. The Major Street Plan and Parking Guide should also be reviewed and updated to promote improved design.

In the Open Space Element and Park and Recreation Plan, there are various programs to be utilized in the promotion of better visual appearance of natural areas. These programs should be considered because it will enhance the visual form of the Sacramento Community. An area that should be studied further is the usage of easements under transmission lines and in drainage canals. Alternative use such as bike lanes, and equestrian trails and pedestrianways might be possible.

Additionally needed programs: Existing programs for Sacramento should be reviewed, updated, and additional programs initiated where indicated. The visual amenity and image of Sacramento may alter through the years; thus new programs should also be developed to anticipate the future.

Scenic corridors. The subject of scenic corridors is a vital design element for consideration. These corridors play a major role in connecting the various districts and neighborhoods of the community and provide a potential for "scenic corridors" through and around the Sacramento area. These corridors give the visitor and residents their impression of one of the important images of the City.

Highways and thoroughfares. California has many highways traversing corridors of outstanding natural scenic beauty. In recognition of the enjoyment of future generations, the State has established an official scenic highway designation program. Furthermore, every city and county general plan shall include a Scenic Highways Element. Since Sacramento does not have any designated scenic highways, but does contain possible scenic routes and corridors, this subject will be addressed, and this portion of the Community Design Element shall be considered to conform to the requirements of State law regarding the inclusion of a Scenic Highways Element in the General Plan. It would be beneficial to the City if these routes were to be studied in detail so recommendations could be developed for their improvement as a visual element in coordinating the image of Sacramento. There are many routes which are vital to the community because they are used heavily by vehicular traffic and would be an asset to the community, as well as the users, if they were visually improved. Some of these corridors are:

16th Street exit. This much travelled route leads out of the downtown area. Improvements in landscaping, sign control, and other factors are needed to improve its visual amenity and circulation.

12th Street entrance. This is an important entrance leading to the downtown area. Improvements are needed so that this entrance would reflect a proper image for the Capital City.

Capitol Mall. This landscaped entrance leads to the State Capitol and adds to the image of Sacramento. It should be further studied for any possible additional improvement of its overall visual attractiveness and utilization.

Freeways. Their visual impact should be improved by landscaping or any other program that is feasible. Land under elevated freeways should be used in such a manner as to enhance the appearance of the neighborhoods.

Others. The river parkways are natural scenic corridors for non-vehicular usage. These corridors add visual amenity, character and charm to the City. They enrich the physical setting of Sacramento. The American River Parkway Plan is a prime example of linking natural areas of the region with the man-made physical elements of the City. Linear open space also enriches the physical setting of communities. It would be appropriate to create more of these areas for enjoyment of the people.

Landmarks. The designation of historical landmarks in Sacramento needs dedicated efforts to gain recognition of the City's heritage of older buildings and sites. Important landmarks should be designated so that individual buildings and sites be preserved for enjoyment of present and future generations.

Old City. This is the primary focal point of Sacramento. The Old City has gone through a period of deterioration and efforts to rebuild the area have been in progress during the past 20 years. Additional efforts are now in progress to continue to design the best possible community for its residents, employees, and the tourist. Community design features should be a major issue during this process.

POLICIES

The Community Design Element is a response to the needs and desires of the Sacramento Community. Its purpose is to promote and emphasize the physical characteristics of the City in order to enhance its environment and appearance. Thus, the physical problems of the city need to be identified so that appropriate remedial programs can be developed. The programs proposed in this section are flexible, and allow for citizens' participation, which is essential in community design.

Enhancement of Visual Image

- 1 - Emphasize and promote the characteristics of Sacramento, through its physical elements, which provide an image to its people and a sense of functional relationship in order to enhance the setting and identity of the City.
- a - Implement the programs for the Open Space and Conservation Elements, particularly the section on urban design

through open space amenities and standards.

- b - Continue efforts to reestablish the Capitol Building and Planning Commission, and implement programs for development of State-owned properties, including the State Capitol Master Plan, by seeking to influence their design so as to provide desired land use mixes, open spaces, landscaping, parking areas and circulation patterns that will add to the visual attractiveness of the central city area.
- c - Endorse and implement the Central City Citizens Advisory Committee recommendations to:
 - (1) - Encourage creative design features for the Old City.
 - (2) - Improve the circulation and parking in the downtown area so vehicular and pedestrian traffic may move freely without obstruction from unsightly amenities.
 - (3) - Recommend that the State accelerate landscaping of freeways in the Sacramento area.
- d - Update and revise the Street Trees and Planting Areas plan, to emphasize certain districts or neighborhoods.
- e - Promote unique lighting fixtures within certain areas of Sacramento to give identification and points of interest in order to enhance the image.
- f - Support the design standards in the Major Street Plan for Sacramento.
- g - Eliminate neighborhood deterioration as described in the Neighborhood Analysis by code enforcement, public improvements, landscaping and provision of open space for visual amenity.
- h - Require all proposed development along major entryways into the City to undergo special architectural review--the role of the Architectural Advisory Committee should be emphasized for this process.

Preservation of Past Heritage

- 2 - Promote the preservation of the City's past resources to enhance the characteristics of the Sacramento Community.
 - a - Support efforts being made to rehabilitate the Old City and its physical elements.
 - b - Promote Old Sacramento as a tourist attraction and a national landmark in California history.
 - c - Support the Sacramento Historic Museum and its programs and efforts in preserving the past heritage of the City.
 - d - Support efforts to retain significant older structures.
 - e - Support rehabilitation programs for older structures to enhance the original character and charm of the district.
 - f - Support preservation of the remaining significant natural areas that have not been developed by man.
 - g - Initiate a program to designate historic landmarks in the Sacramento Community as an education resource of all generations.
 - h - Initiate programs to beautify unsightly streets throughout the Sacramento Community.
 - i - Recommend and support programs for the preservation of historically and architecturally significant buildings throughout the City.

Improvement of Neighborhoods and Communities

- 3 - Improve neighborhood and community environments to provide a sense of pride and identity among its residents.
 - a - Design neighborhood areas to reduce impact from noise, pollution and the physical danger of excessive traffic.
 - b - Support a balanced park system by locating parks and playgrounds in convenient areas where they will serve the residents of the local neighborhood and provide focal points.

- c - Support coordinated school and park recreational facilities by cooperative action with various school districts to enhance the neighborhood concept.
- d - Initiate a "Mini-Park" design concept to enrich the appearance of Sacramento's neighborhoods where applicable.
- e - Update the community plans of Sacramento with maximum citizens' participation.
- f - Priorities in planning activity should be towards communities that have long-standing physical and social problems.
- g - Promote development of vacant lots which have been bypassed by urban development.
- h - Consider the superbblock concept for applicable portions of the Old City to promote, among other reasons, open space for visual amenity.
- i - Review and determine the feasibility of landscaping, street lighting and street furniture to give identification to neighborhoods, thus promoting a sense of pride to the residents.
- j - Encourage comprehensive neighborhood beautification programs through landscaping, tree planting, home improvement, and general maintenance to increase neighborhood pride and improved neighborhood appearance.
- k - Initiate a schedule and criteria for updating the City's community plans.
- l - Reexamine, with public participation, community plan boundaries for the purposes of combining the many smaller planning areas into geographically larger units more reflective of the common social and economic interests of community residents and of the physical attributes and problems common to the various communities.
- m - Formulate, with public participation, a priority program for the development of the various community plans, with emphasis on communities having long-standing physical and social problems.

- n - When undertaking a community plan, establish a citizens advisory committee made up of community residents. A CAC should be advisory to both the Council and the Planning Commission. Members of the CAC should be appointed by mutual agreement of the Council members in whose districts the community lies. The Planning Commission may recommend a list of prospective CAC candidates.
- o - Provide the CAC's with technical assistance from the Planning Department staff for the purpose of establishing community goals and plan alternatives for presentation to the Planning Commission and Council.

Initiation of New Programs

- 4 - Promote improvement of Sacramento's urban environment to reflect each community's desire for a more attractive environment and the development of a coordinated comprehensive program to enhance the City's appearance.
 - a - Encourage more utilization of the PUD concept in the Sacramento community to enhance the visual image of neighborhoods and communities.
 - b - Initiate action to amend the Subdivision Ordinance to require all utilities in future development to be underground.
 - c - Initiate amendment of the Zoning Ordinance to provide for designation of major entryways into the City as scenic corridors, and to provide for their beautification.
 - d - Review the City's Sign Ordinance and initiate more stringent regulations for the Central Business District, and other areas, where indicated.
 - e - Support the Street Lighting Plan, and consider unique light fixtures for various districts to give an identity to the area, such as in Old Sacramento.
 - f - Support NDP projects, and continue assistance towards redevelopment of deteriorating neighborhoods.

- g - Encourage trails systems throughout the Sacramento Community for bicyclists, pedestrians, and equestrians which are separate from the vehicular circulation system.
- h - Coordinate with utility districts to enhance the visual amenity of the City by study of the potential feasibility of using rights-of-ways for recreation or linear open space.
- i - Adopt and implement the Gold Rush Parkway Plan to promote the development of the American River as a regional scenic corridor.
- j - Seek to influence the development of State-owned properties including the Capitol Master Plan. These areas should be designed to provide desired land use mixes, open spaces, landscaping, parking areas and circulation patterns that will add to the visual attractiveness of the Central City area.
- k - Coordinate with the County in developing common urban design standards which will lead to consistent treatment of bordering areas, particularly along entrances to the City.
- l - Reexamine the zoning and subdivision ordinances and investigate other mechanisms for the purpose of encouraging more practical, harmonious development of irregularly shaped or sized lots and of sparsely developed areas within the urban complex.
- m - Encourage energy-saving practices in the design and development of communities, neighborhoods and individual structures.

AIR POLLUTION ELEMENT

SECTION ELEVEN

Approved by the
City Planning Commission
Resolution 107

August 13, 1974

Adopted by the
City Council
Resolution 74-444

August 29, 1974

AIR POLLUTION ELEMENT

GOAL

Provide a healthier living environment for City residents through the control of unpleasant and injurious air emissions which contribute to pollution in the greater Sacramento area.

BACKGROUND

The greater Sacramento area has air pollution. While it is not a continuous threat to human life locally in that weather conditions do not allow accumulation of air pollutants over long periods of time, the problem warrants serious consideration since air contaminants do affect everyone's health, comfort and pleasure.

Control of air pollution is now being pursued actively by all levels of government. The Clean Air Act established national ambient air quality standards and the Environmental Protection Agency has developed programs to assist localities and states in establishing or improving air pollution controls. These controls which are currently being reviewed and refined affect land use and transportation planning as well as mobile sources.

On the State level, several articles of the Health and Safety Code are the main legislation enacted to combat air pollution. These require the State Air Resources Board to establish air basins and pollution standards for these basins. The State also sets the guidelines for air pollution control of agricultural burning.

Regional involvement in controlling air pollutants has been proposed by the Air Resources Board in several programs submitted to the EPA for approval. In each case, the proposals would establish an air pollution control board for the Sacramento Valley Air Basin which is composed of portions of 15 counties, and contains approximately 21,300 square miles.

The Sacramento County Air Pollution Control District was established in 1959 to monitor air pollution, and to control local violations from stationary pollutant sources. Through the County Health Agency which carries out district activities, rules and regulations pertaining to the abatement of air pollution emissions have been established and are being administered. The City of Sacramento, while not having primary responsibility for air pollution control at this time, does coordinate activities with the Health Agency involving stationary sources that could exceed air quality standards and anticipates greater governmental involvement in this general field.

EXISTING AIR QUALITY

The Sacramento Valley Air Basin lies in the center of Northern California, bounded on the west by the Coast Range, on the north and east by the Cascade Range, and on the south by the San Joaquin Valley. This region contains approximately 1.2 million people and 840,000 motor vehicles. Within this basin, the air quality levels are most severe in the southern portion of the region centering around Sacramento County. The majority of air pollution comes from three major sources: transportation, agricultural waste burning, and fixed sources. During the period 1970 to 1972, the Sacramento Valley region experienced numerous violations of both Federal and State air quality standards.

Air quality in the Sacramento area is currently measured at three locations. Two of the stations are situated in downtown Sacramento and the third is in the northcentral area of Sacramento County. The following table compares ambient quality standards with observed maximum pollutant concentrations for the five year period 1967-1971 at a fourth station which is now inoperative. It may be noted that the standards have been exceeded for every pollutant listed in each of the years with the exception of nitrogen dioxide and in 1970, the maximum one-hour average carbon monoxide level.

COMPARISON OF AMBIENT AIR QUALITY STANDARDS AND OBSERVED AND ESTIMATED MAXIMUM POLLUTANT CONCENTRATIONS AT SACRAMENTO AIR POLLUTION CONTROL DISTRICTS "13 & J" MONITORING STATION

POLLUTANT	STANDARD		YEAR				
			1967	1968	1969	1970	1971
Carbon Monoxide	8 Hr.	9ppm	18	15	18	15	12
	1 Hr.	35ppm	55	53	49	32	42
Nitrogen Dioxide	Annual	.05ppm	.035	.025	.030	.029	.025
	1 Hr.	.25ppm	.30	.18	.20	.15	.25
Photochemical Oxidant	1 Hr.	.08ppm	.27	.15	.20	.17	.17
Suspended Particulate Matter	Annual Geometric Mean	($50 \mu\text{g m}^{-3}$)	--	--	--	--	74.6
	24 Hr.	($100 \mu\text{g m}^{-3}$)	--	--	--	--	191

The United States Environmental Protection Agency (1973) reports that the Sacramento Valley experienced numerous violations of both Federal and State air quality standards from 1971 through 1972 (data has not been published beyond the latter year). Photochemical oxidants are the predominant problem, and the EPA has detected a trend in recent years toward increases in the number of violations that occur and maximum oxidant level reported, though it is admitted that the data evaluated was limited. Based on the highest one-hour maximum oxidant reading of 0.28 ppm during 1972 (Creekside Station, Northcentral Sacramento County), the EPA has estimated that a 71 percent reduction in reactive hydrocarbon emissions from 1972 base year emission levels would be required to meet the National Air Quality Standards for oxidants.

The major source of air pollutants released in the Sacramento area is the automobile. Of an estimated 2,087 tons of carbon monoxide emitted per day in 1971, 81 percent was from mobile sources; 86 percent of the hydrocarbons which react photochemically in the atmosphere to produce oxidants originated from mobile sources.

Smoke from agricultural activities, particularly from the burning of rice stubble and orchard trimmings, frequently contributes to the haze over Sacramento during the fall season.

There are few major stationary sources of air pollution locally. Normally this problem is associated with large petroleum, metallurgical, oil or gas power plants, or related industries. The many food processing industries are fairly clean with regard to air pollution. Natural gas is used almost exclusively for industrial, commercial and residential heating locally; however, it emits relatively little air pollution within the overall community.

Most air pollution associated with open fires and backyard incinerators was eliminated in July of 1971 with the ban on burning combustible refuse.

In summary, the Sacramento region possesses a high meteorological potential for the occurrence of air pollution. Emissions are now of sufficient magnitude to cause air quality standards to be exceeded with some frequency. Significant reductions in pollutant emission, particularly from mobile sources, will be required if air quality standards are to be met and maintained. It is unlikely that source control alone will be sufficient to achieve this reduction; land use planning in the context of air quality impact and transportation alternatives will have to be provided to ensure a clean atmosphere in the Sacramento area.

FUTURE AIR QUALITY

Analysis of the nature and extent of air pollution locally, and the present efforts to combat the problem, would seem to indicate that relatively clean air could be enjoyed by all residents in the greater Sacramento area in the foreseeable future. Assuming that public concern in this field remains a vital issue, the following observations would tend to fortify this conclusion:

- 1 - Although the number of motorized vehicles in the Sacramento Region is expected to substantially increase in the next 20 years, photochemical pollutants will decrease significantly due to more rigid Federal and State vehicle controls and emphasis on forms of transportation requiring less fuel consumption. The automotive industry has made some progress in air pollution control equipment on newer model vehicles and the industry is working on other pollution-free forms of transportation.
- 2 - While commercial air traffic will greatly expand, the problem of black smoke emissions on take-off will be minimal. The problem is already being corrected by the aircraft industry. Counter to this improvement, however, will be the need for eliminating unburned hydrocarbons and the less visible nitrogen oxides. Correction of this problem will hopefully occur about the same time as effective reduction in smog producing emissions from automobiles occurs, even with increased air traffic.
- 3 - Progress in eliminating all agricultural burning of crop wastes is expected to be slow. Reuse of agricultural waste products and increased knowledge in their management will eventually decrease the need for burning.
- 4 - Public awareness of air pollution will increase to a point where there will be dissatisfaction regarding any noticeable atmospheric concentrations of pollutants.
- 5 - Technological and administrative improvements designed to eliminate air pollution will increase the general quality of air locally.
- 6 - While local government presently deals primarily with stationary source controls, it will become more closely involved with EPA and Air Resources Board programs related to land use and transportation planning and to reduction in vehicular miles travelled.

EPA AIR PROGRAM AND IMPLEMENTATION

In July of 1973 the Environmental Protection Agency promulgated air programs and implementation plans designed to reduce pollution to levels below those established by the Clean Air Act.

These programs and plans affect all California residents and impose additional controls upon air basins containing metropolitan areas with more severe pollution problems, the Sacramento Valley Air Basin being one of these. The controls and their subsequent amendments are anticipated for final modification and approval after the last public hearing scheduled for mid-1974; however, a State initiated plan could replace the EPA plan at any time thereafter if acceptable to the Federal government. Either plan appears to have far reaching impact upon local jurisdictions and would deal with three basic sources of pollutants. Because the EPA plan is most imminent, its impact upon the Sacramento area is briefly described below.

Special control measures are proposed for stationary sources that include vapor recovery at service stations, organic solvents usage, control of degreasing operations, dry cleaning solvent vapor losses, and metal surface coating thinner and reducer. Special control measures are also proposed for mobile sources such as trucks, automobiles and motorcycles. These range from limitations on usage to required maintenance programs. And finally, special control measures are proposed for the reduction of vehicular miles travelled. Under study are pilot programs for exclusive bus/carpool lanes, bus/carpool matching, parking supply management, mass transit incentives for employees, and improvements in monitoring. Each of the regulations is considered to be enforceable by the Environmental Protection Agency. Since July of 1973, however, the majority of revisions to the original control plan have been regarding deadlines for implementation. These deadlines have generally been extended and are still subject to change before final approval.

POLICIES

Air pollution policies. The following air pollution policies are recommended for adoption:

- 1 - Continue to prevent or reduce air pollution in the City wherever possible by working closely with environmental health officials in curtailing existing fixed pollutant sources, and by taking appropriate measures to ensure clean air standards for all new land uses.
- 2 - Continue to develop plans which encourage the use of bicycles as a form of commuter transportation so as to reduce the contaminant emissions from motorized vehicles.
- 3 - Encourage the development of fringe parking lots for cars and bicycles along Sacramento Regional Transit District routes as well as at major shopping centers.
- 4 - Conform with air pollution control measures as finally approved by the Environmental Protection Agency, and any

subsequent replacement measures by the California Air Resources Board should these be submitted and approved.

- 5 - Encourage the use of techniques to reduce the number of motor vehicle trips taken and thus the amount of related air pollutants. These should include, but not be limited to, providing more bicycle parking and routes, and car pooling incentives.

ENVIRONMENTAL IMPACT REPORT

SECTION TWELVE

Planning Commission: Approved
Draft EIR

August 13, 1974

City Council: 1) Determined EIR
adequate, 2) Certified compliance
with State Guidelines, and 3)
Determined no significant effect
on environment

August 29, 1974

This document is designed to serve as the ENVIRONMENTAL IMPACT REPORT on the 1974 General Plan. It fulfills the requirements of the California Environmental Quality Act, and is subject to the normal review procedure for an Environmental Impact Report.

Section 15147 (c) of the State Guidelines "Degree of Specificity" states that "The requirements for an EIR on a local general plan or element document, i.e., no separate EIR will be required, if; (1) the general plan addresses all the points required to be in an EIR by Article 9 of the Guidelines and (2) the document contains a special section or a cover sheet identifying where the general plan document addresses each of the points required."

I DESCRIPTION OF PROJECT

The text of the 1974 General Plan (Section 1) adequately described the location, purpose and scope of the project with the exception of the following statement:

This section is designed to serve as an environmental impact report. It fulfills the requirements of the California Environmental Quality Act, and is subject to the normal review procedure for an Environmental Impact Report.

II MAPS

The following location map as well as maps throughout the text of the General Plan locate City boundaries in relation to study areas, communities and major streets.

III DESCRIPTION OF ENVIRONMENTAL SETTING AND IMPACTS

A. Natural-Physical Environment

1. Climate and Air Quality

Atmospheric conditions are discussed on pages 11-2 and 11-3. The climate of the City of Sacramento is generally representative of that which prevails throughout the Central Valley. Summers are hot and dry, while winters are cool and moist. The average precipitation is approximately 16 to 20 inches per year, occurring between October and May. Southerly winds prevail with an average velocity of 7 to 9 miles per hour. The winds are influenced in most instances by the cool marine air entering the Central Valley through the Carquinez Straights. (1)

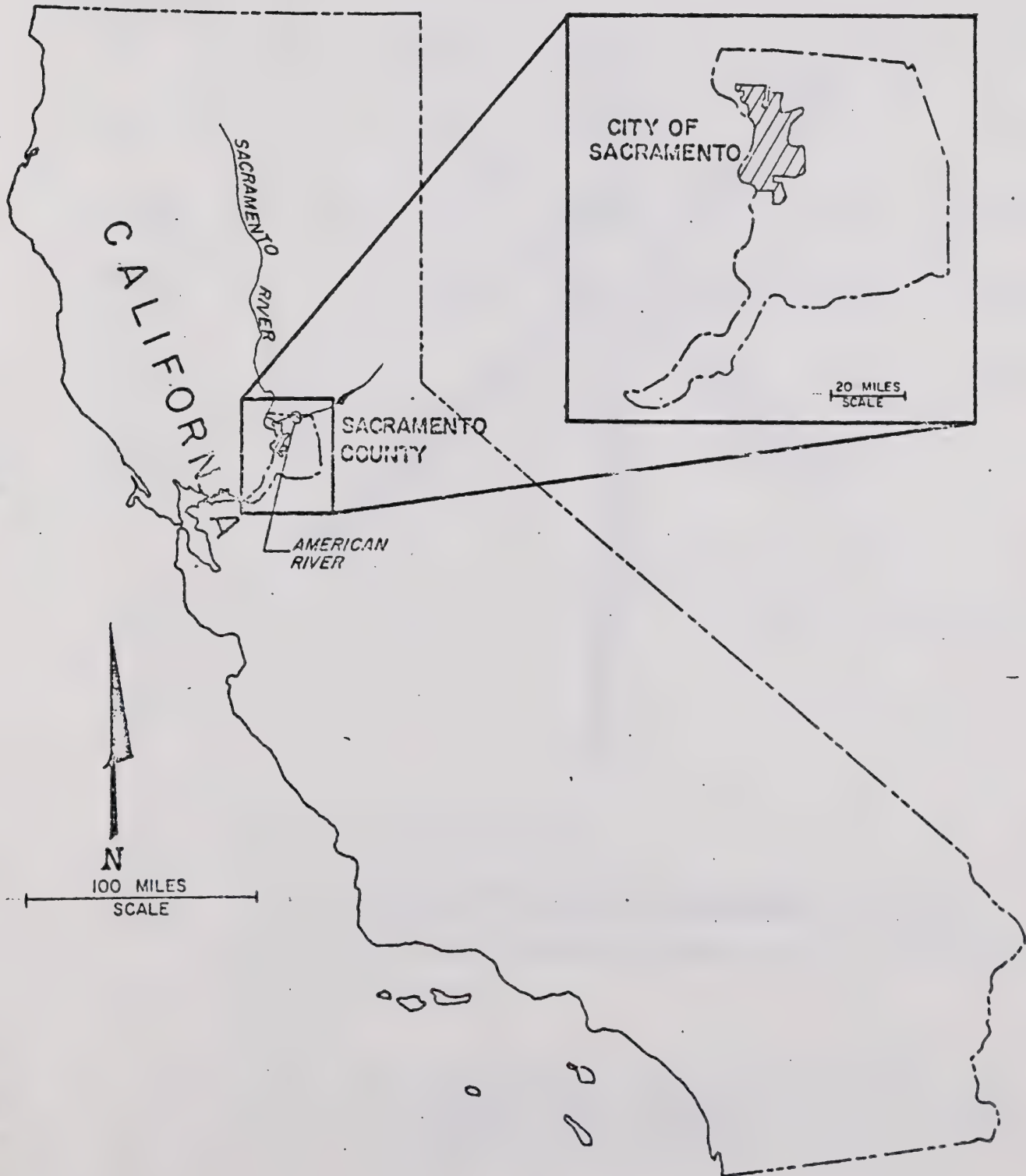
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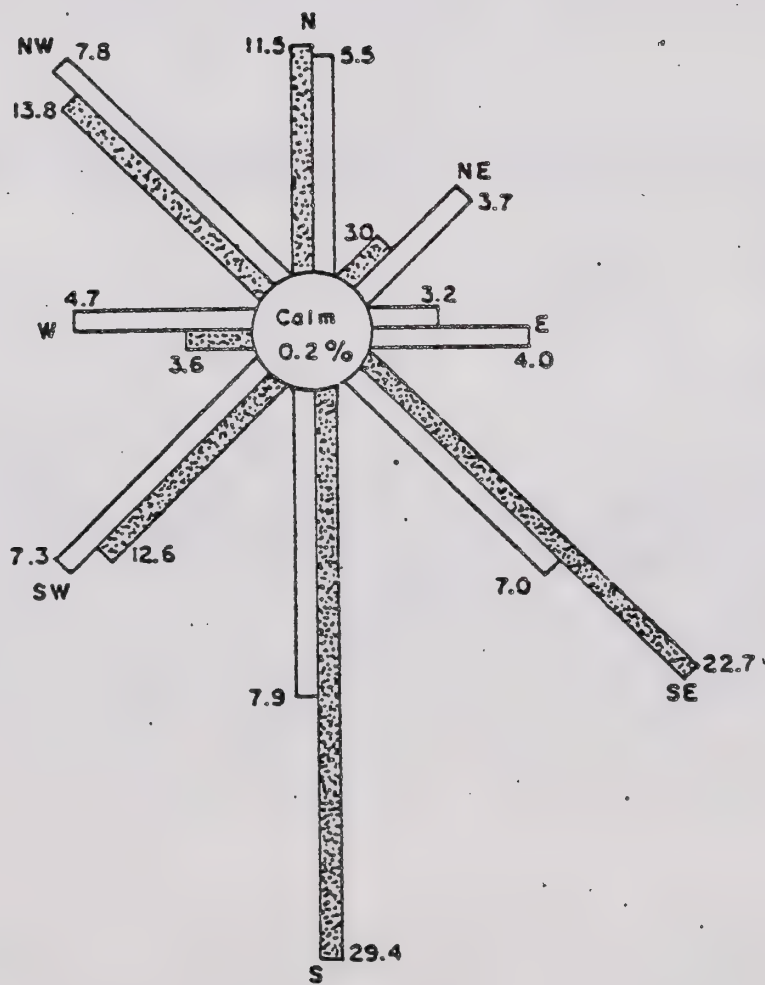
The General Plan projects an approximate population of 353,000 by 1990. This increase could lead to an increase in motor vehicle exhaust emissions under present conditions. The increase in residential construction on the City's suburban fringe will increase the number of trip ends in general and specifically in the City.

Expansion and on-going improvement of the existing major street system will enable more motor vehicles to travel more direct routes. This may tend to reduce air pollution on the less traveled collector type streets, but will increase the pollution on major streets and freeways.

A greater population density would normally increase pollution in a given area due to the greater number of vehicles. Dependency on automobiles may be modified by greater emphasis on alternative modes of transportation and new technological changes.

LOCATION MAP





 percent of time from indicated direction

 average hourly velocity

ANNUAL WIND ROSE
U.S. WEATHER BUREAU
SACRAMENTO, CALIFORNIA

AMBIENT AIR QUALITY 1973

Test Variable	Date of Testing	McClellan AFB*		Downtown Sacramento**		California Standards
		Max. Hrly. Avg.	Avg. of Max. Hrly. Results	Max. Hrly. Avg.	Avg. of Max. Hrly. Results	
Suspended Particulates	3-5 thru 3-23	31 $\mu\text{g}/\text{m}^3$	24 $\mu\text{g}/\text{m}^3$			100 $\mu\text{g}/\text{m}^3$
Lead	3-5 thru 3-29	0.422 $\mu\text{g}/\text{m}^3$	0.306 $\mu\text{g}/\text{m}^3$			1.5 $\mu\text{g}/\text{m}^3$
Ozone	3-7 thru 3-31	0.05ppm	0.025ppm			0.10ppm
Nitrogen Dioxide	3-8 thru 3-31	0.12ppm	0.054ppm	0.07ppm	0.04ppm	0.25ppm
Oxides of Nitrogen	3-8 thru 3-31	0.48ppm	0.14ppm	0.44ppm	0.17ppm	0.35ppm
Carbon Monoxide	3-7 thru 3-31	8ppm	1.6ppm	4.0ppm	1.2ppm	4.0ppm
Hydrocarbons (includes Methane)	3-8 thru	5ppm	2.6ppm	10ppm	5ppm	

*Samples taken by Air Resources Control Board of Air Sampling Station 34-A02 McClellan AFB

**Samples from 1025 "P" Street, Sacramento (Air Resources Control Board Office Building).

2. Geologic and Soil Conditions

Geologic and Soil Conditions of the City of Sacramento are discussed in Sections 7 (Conservation Element) and 8 (General Safety Element - seismicity and hazardous areas) of the proposed General Plan.

Impact

Primary and secondary effects of growth anticipated for the City upon geological foundations and seismicity will be minor or non-existent.

There will be two categories of effect on soils, fertility and erodibility. These will be indirect impacts due to urbanization of vacant or agriculturally used land. The use of fertile land south of I-880 and in the Pocket area for residential use represents an irreversible commitment of the land. While the actual fertility of the land will not change, it is probable that, once developed, this land will never be returned to agricultural production.

Proposed policies, if implemented and enforced, may reduce the hazards and possible damage as defined in Sections 7 and 8.

Optimum protection against all of these hazards may have an adverse impact due to unrealistic expenditures and controls.

The joint City-County Seismic and Safety Citizens Advisory Committee has determined that the General Safety Element Provides an acceptable level of risk for most seismic and geologic hazards confronting the City.

3. Hydrology and Water Quality Conditions

Existant conditions are addressed on pages 7-9 through 7-16. Flooding as a potential hazard is discussed on pages 8-9 through 8-13.

The proposed Regional Waste Water Treatment Plan would reduce or eliminate outfalls in the American River. Projected Population increases will also increase the amount of material treated and discharged through wastewater facilities.

Impact

Some impacts are discussed on page

The larger surface area that is covered by buildings and/or solid surfaces results in greater surface runoff with its inherent oils, phenols, etc. An increase in population will result in increases in urban run-off. Up-stream sources of agricultural run-off contain relatively high concentrations of pesticide and nutrients that can degrade City water quality.

An additional impact of the adoption and implementation of the General Safety Element of the General Plan may be to reduce potential hazards as discussed in Section 8.

4. Plant and Animal Communities

Existant conditions of biological resources (flora and fauna) are discussed in the Conservation Element (page 7-16).

Impact

The continuation of agricultural production in selected areas will favor those wildlife species that flourish in farmland habitats. The relative homogenous habitat conditions created by extensive acreages of a single crop tend to discourage the presence of a diverse array of wildlife species, however, and can allow an over-abundance of animals generally regarded as pests by man. A number of insects and other invertebrates, as well as several small rodents are among the species commonly considered to be pests. A diversity of agricultural lands, landscaped areas, and undisturbed preserves will ensure that wildlife populations are maintained and enhanced.

The provisions for landscaping in urban areas, encouraged in the recommendations in the Open Space Element dealing with visual amenity, will introduce vegetation, and hence provide additional wildlife habitat. The well-developed system of mature street trees that presently characterizes the Old City area supports abundant populations of birds, small mammals, and other animals, and exemplifies the benefits of landscaping.

Although recommended trail systems will allow increased exposure for citizens to natural vegetation and wildlife, it also increases the potential of disturbance or distraction of these systems.

Natural animal and plant communities in Sacramento exhibit complex relationships which can be altered by almost any disruption of habitat, or energy source by man. Degradation of air quality, water quality, increases in noise level, domestic animals, automobiles, introduced exotic flora, pesticides and herbicides all may adversely influence native plant and animal life.

Urbanization of large natural or agricultural areas destroys natural communities leaving only representatives where diverse populations once existed. These include remnant populations of small nocturnal burrowing rodents, insects and other arthropods, and song birds along with limited natural vegetation. In urban areas, backyards of residences, areas along canals and creeks, and vacant lots provide some habitat for a limited number of animal and plant species. Parkways which are not yet developed with groomed lawns and sprinkler systems still support diverse populations of plants and animals. A good example of the latter are the natural areas along the American River Parkway.

The Sacramento area once contained abundant populations of wildlife and native plants which have been all but replaced with introduced species. Once abundant, the endangered southern bald eagle, the American peregrin falcon, the tule white-fronted goose and the rare giant garter snake now barely survive. Several endangered species of native grasses are facing certain extinction. (2)

The General Plan recognizes the importance of open space as a major aspect of environmental quality. It proposes to reserve agricultural land for exclusive agricultural use, preserve the natural recreational resources, especially the areas along major rivers and streams, and provide adequate park space in urban areas. This is especially important because urban development too near waterways often results in a chain reaction of adverse impacts which are detrimental to the land, vegetation, wildlife, aesthetics, and flood potential of the developed lands near the waterways as well as downstream lands.

B. Socio-Physical Environment

1. Historical Features and Uses

Historical features and uses are discussed, along with preservation of past heritage in the Community Design Element (Section 10) pages

The records of Francis Riddell, State Archaeologist for the California Department of Parks and Recreation, indicate that 16 archaeological sites have been identified in the City of Sacramento, and many others have been found in the rest of Sacramento County. A number of these sites have been buried or destroyed by construction. According to Mr. Riddell, six important sites among those located thus far within the city have not been damaged. He feels few new sites will be discovered in the future. ⁽²⁾

2. Aesthetic and Nuisance Conditions

Aesthetic and nuisance conditions in Sacramento are specifically discussed in the Community Design Element, pages 10-1 through 10-11; and in the Air Pollution Element, page 11-4. These conditions are also discussed in the adopted Open Space Element and its Environmental Impact Report. The Noise Element which is currently being prepared by the Planning Department will also contain aesthetic and nuisance factors. Other elements of the General Plan address themselves to improving the aesthetic quality of the City, however, these are more general in nature.

Impact

Potential negative impact of the General Plan upon the aesthetic qualities of Sacramento would be due to the forecasted growth of the urban area without corresponding provision for improvement. This, however, is ameliorated by recommended community design policies and beautification programs on pages 10-11 through 10-16. Other policies intended to increase the aesthetics of Sacramento are found on pages 1-16, 17, 18; 2-6, 7, 10, 11, 13; 3-8, 9; 4-3, 4; and 5-3, 4.

The recommended Regional Sewage Treatment Plan may have the potential secondary effect of creating noxious odors. Discussion of this problem is found on page 4-15. Other nuisance conditions can be anticipated from the increase in automobile use resulting from urban expansion. The secondary effects of air and noise pollution are dealt with in the major street and public transit sections of the Circulation Element, pages 3-5, 6 and 3-13, 14; and in the Air Pollution Element, pages 11-4, and 5. In addition to these mitigation measures, the Noise Element will directly discuss noise nuisance and appropriate policies for its reduction.

3. Population Distribution and Concentration

Demographic assumptions, population forecasts and means of effectuation are found on pages 1-7 through 1-9. Charts and graphs on succeeding pages provide additional information on existant and past conditions.

Anticipated population projections are based on available information.

Growth directed into three presently non-urbanized areas does not indicate growth in these areas in a particular time frame.

Impact

The direct effect of the General Plan upon the population of the City is extremely limited. The Plan does present goals and policies for guiding growth and ensuring that new development follows logical patterns.

The General Plan provides for input of populations and has the policy of providing for growth.

4. Land Use

The largest consumers of land recommended by the General Plan are residential, commercial and industrial uses. These are discussed most in Section Two, the Land Use Element. Non-urban, agricultural-open space uses discussed in the Open Space and Conservation Elements have been commented on in a previously adopted Environmental Impact Report. The overall General Plan Map One also shows the distribution of these major land uses. Because conservation and rehabilitation of most existing urban uses and the development of new urban land uses to accommodate forecasted gains in population over the next twenty year period is recommended, the basic policies, goals, and assumptions in Section One are closely related to the foregoing. Specifically, the City's future growth is discussed on pages 1-5 through 1-18.

Impact

The impact of the urban land use recommendations in the General Plan is both positive and negative, and can be classified into three broad subject areas.

First is the impact of the recommendations on the existing land resources. The conservation and improvement of existing urban land uses is believed to have no significant impact upon land resources which are already utilized. Beautification programs of the General Plan may, in fact, provide some positive impacts. Of the proposed urban land uses which are required to accommodate population increase, land resources are utilized in both positive and negative ways. Agriculturally productive lands in the Pocket and Northgate-Gardenland areas are identified for urban growth. On the other hand, so are the Meadowview and Valley Hi communities where non-urban lands are presently not used or not suitable for high agricultural crop yields. The impact of urban uses in those areas where more fertile soils occur, however, is somewhat ameliorated by their proximity to the City's urban core and to adjacent urban areas. This fact tends to offset the additional municipal service costs associated with urban sprawl. The impact of existing and proposed land uses upon the related water resources are discussed in other sections of this report.

Second is the impact caused by recommendations concerning the spatial distribution of major land uses. The spatial distribution of proposed uses as shown on the overall General Map One reflects the most commonly recognized principles for the location of residential, commercial and industrial land uses. These, and their supporting text recommendations, are believed to have a positive impact. Of particular note is a policy in the commercial land use section, page 2-10, which will examine and make corrective recommendations for those existing strip commercial developments that have significant problems. This General Plan recommendation will have the secondary effect of being a beneficial impact upon land uses adjacent to problem strip commercial land uses.

Third is the impact of recommendations concerning the direction of urban land uses expansion. The General Plan policies on pages 1-5, 16, 17, and 18 are directed toward achieving orderly, contiguous growth. These policies will, therefore, have a positive impact. Omitted from the text, however, are any recommendations for the utilization of non-urbanized lands in sparsely developed areas of Sacramento. Urban growth adjacent to the existing urban fringe without corresponding policies which deal with the more complete development of those sparse areas could have a negative impact in the form of encouraging urban sprawl. A mitigating measure would be to recommend a special study of

implementation tools which would encourage better utilization of sparsely developed areas in the Colonial, Fruitridge, Del Paso Heights and North Norwood areas.

C. Public Services-Facilities Environment

Police Services

Police Services are multiple and varied with the major emphasis being field operations. The City is divided into as many as 23 patrol beats (depending on the shift) with 80± patrol cars available for duty. The Police Department budget is \$12,700,000 or approximately \$48 per capita. The police staff includes 520 sworn officers authorized to carry out police powers. The approximate ratio of sworn officers to citizens is 1.8/1000.⁽³⁾ Reported crimes against persons and property in 1973 totaled 15,592, down slightly from the previous two years for the same categories.⁽⁴⁾ Although the Police Department provides various other services, suppression of crime and apprehension of violators are perhaps most important to the citizens on the street. In terms of service demands for police protection the most difficult projection factor is the incalculable "Human Element." Police services are included on pages 4-6, 7 - Public Facilities Element.

Impact

As growth takes place, particularly in numerical quantities, demands on police service will increase. Service levels can be maintained so long as provided with personnel and equipment when required. New development should be cognizant of architectural features that can be incorporated into project design which would tend to reduce criminal activity.

Areal growth in contiguous land use patterns would provide the capability to provide police service at lowered costs.

Fire

Potential fire hazard areas and fire related to earthquakes are discussed on pages 8-14 and 8-15.

The Fire Department is currently operating under the May, 1971 "Master Plan for Improved Fire Protection" which indicates new and overlapping truck and/or engine company location sites. Fire stations are either existing or proposed in the areas of anticipated growth. The total Fire Department budget is slightly more than \$9 million dollars or approximately \$33 per capita.

Sacramento is currently an Insurance Service Organization rated Class III City,⁽⁵⁾ a rating shared by few other cities in the nation. Fire stations are discussed on page 4-7 of the General Plan.

Impact

Adoption and implementation of the General Plan policies may reduce potential hazards and damage as discussed in Section 8.

Service demands placed on fire fighting and protection services will be increased as anticipated growth takes place. As long as desirable service radius and response time can be maintained, fire service could remain at current levels. If development exceeds these parameters, service levels can be maintained only as new facilities and man power are provided.

Streets and Highways

Streets and highways are discussed in the Circulation Element (Section 3). Of note is the estimated doubling of vehicular miles of travel per day by 1990.

Impact

The major impacts of improved or extended street systems are (1) primary or secondary growth inducement, (2) degradation of air quality, and (3) increase of ambient noise levels. As areal growth takes place extension of street systems are anticipated resulting in the above noted adverse impacts. The Circulation Element does encourage increased development and usage of pedestrian and bicycle pathways. Such pathways, to a degree, will be incorporated into the existing street system.

Another transportation method utilizing existing street patterns is bus service. The recently organized Regional Transit District (SRTD) is providing transit service on an ever increasing scale. Although buses may be considered individually objectionable (noise, odor) the overall effect of reducing congestion, total vehicle emissions and land required for parking are the overriding environmental considerations.

Park and Recreation Facilities

The General Plan (pages 4-2 and 3) reflects existing park conditions as set forth in the Recreation and Parks Plan of 1968 and the Open Space Element of the General Plan. One notable addition to Recreation and Park policies is the charging of a recently enacted park development tax on the construction of new residential facilities.⁽⁶⁾ The Recreation and Park Department budget is slightly more than 11% of the entire City budget or a \$30 per capita expenditure. The average nation-wide norm is 3-4%.⁽⁷⁾ These statistics reflect the importance the City of Sacramento places on maintenance and upgrading of existing facilities and providing funds for the development of future sites.

Impact

Increased population will place increased demands on existing facilities,

especially those of the specialized or regional nature. Continuation of existing policies with constant re-evaluation for adequacy will ameliorate growth impact.

Water

The City currently operates the Sacramento River, the American River and the Riverside Water Treatment Plants. Surface water sources are the Sacramento and American Rivers which provide the potential for high quality water at reasonable cost. The water supply for the area north of the American River is supplied through private or community wells. As development has taken place in the north area, ground water levels have declined.⁽⁸⁾ The General Plan has additional discussion of water supply facilities on pages 4-17 and 18.

Current water consumption is 158 mgd or approximately 250 gallons daily per capita. Reservoirs are incorporated into water treatment plants as water demand has high hourly fluctuations. Such reservoirs provide storage capacity to supply a sufficient quantity of water at peak hours that would normally over burden plant treatment capacity.⁽⁸⁾

Transmission facility installation is usually a joint effort between developer/assessment district and the City. The City is normally responsible for the larger capacity main trunk lines. Transmission facility maintenance in public right-of-way is the responsibility of the City, while that on private property is that of the property owner.⁽⁸⁾

Impact

As development occurs, it will demand its respective share of the water supply. The City currently has perfected or existing water rights on the Sacramento and the American Rivers which total 326,800 ac-ft/year. This has the potential of serving a population of 894,000 which is the ultimate population for the Greater Sacramento Water Service Area.⁽⁸⁾ However, major capital improvements in the form of new and/or expanded treatment plants will be needed to physically be able to supply the increased population with water.

Sewerage Facilities

Liquid wastes are discussed on pages 4-13 to 4-15 of the General Plan.

Impact

It is anticipated that new development will generate its share of liquid wastes, the degree depending on the scope and type of project. As present treatment plants are operating at less than capacity, reasonable growth patterns may evolve that will not overburden existing facilities. However, individual projects should be scrutinized to assure that cumulative impact shall not exceed existing capacity in the system.

To provide for greater and improved treatment capacity, the Regional Waste Water Treatment Plant is proposed. Major impacts of such a facility would be reduction of outfall from the American River and adequate capacity to service projected growth.

Solid Waste Collection Facilities

The Waste Removal Department has the responsibility of solid waste collection and disposal within the City. Collection rates are based on gallons of refuse generated per week and number of pick-ups per week. Refuse collection vehicles are leased at a charge of \$40.00 per day. Total daily route costs for a vehicle and three man crew run approximately \$200.00 per day. The number of pick-ups possible per working day vary as to density and type of development. An average pick up rate would be 500-600 stops per route per day.⁽⁹⁾ Solid waste is further discussed in pages 4-15 and 16 of the General Plan.

Impact

New growth will generate varying amounts of solid waste. As growth occurs existing collection routes will either be expanded or new routes put into service. No capital expenditures will be required per se, however, additional costs of \$200± per day will be incurred. Refuse collection is identified as a self-supporting service. When excessive costs are incurred the collection rates are usually adjusted to cover such expenses.⁽⁹⁾ To the extent that new development reduces the life expectancy of the City's existing sanitary land fill site, such development would be considered to have a significant impact. However, the recommendations and policies on pages 4-16 and 17 of the General Plan would tend to minimize this impact.

School Facilities

The General Plan discusses public schools in the Public Facilities and Services Element, pages 4-4, 5 and 6. Determination of the type, number and distribution of these facilities is primarily the responsibility of the individual school districts, and the subsequent coordination with the City Planning Department resulted in the referenced policies and graphic presentation on the overall General Plan Map Two. It should be noted, however, that the rapidly changing requirement for school facilities in all of the Sacramento community renders this area of recommendations in the General Plan subject to greater change over the next twenty year period. The three major areas affecting change are discussed on page 4-5 and 6.

Impact

The impact of the General Plan recommendations will be that new facilities will be required and some old facilities will need to be replaced

(Field Act schools). Additional facilities will be required to meet the education requirements of people in expanding urban areas of the City. Orderly growth and attendant related services which tend to minimize the negative impact of the recommendation for new facilities are discussed in other areas of this report.

Sacramento Municipal Utility District (SMUD)

SMUD is part of an overall grid network that supplies power to northern California. Other major power producers are the Bureau of Reclamation and Pacific Gas and Electric Company. A constant inter-exchange of energy takes place between power producers. SMUD's power sources will be two in the near future: existing hydroelectric capacity and the near functional (Oct., 1974) Rancho Seco Nuclear Power Plant. As hydroelectric capacity varies from year to year (depending on precipitation and snow pack) nuclear generation will tend to even out seasonal fluctuations in hydroelectric capacity.⁽¹⁰⁾

Extensive land developments are less expensive to service than intensive land developments. This is not to say that non-contiguous land development is advocated. Costs and potential for equipment failure are increased with intensive undergrounding of electrical equipment.⁽¹⁰⁾ However, in order to reduce visual impact, undergrounding is a requirement of P.U.C. Rule Nos. 15.1 and 15.2.

Impact

The total energy situation is unclear at this time, although SMUD officials are of the opinion that the "Energy Crisis" will be prevalent over the long term. Individual energy conservation measures are advocated with energy conservation techniques advised in the architecture and construction of new buildings. With the implementation of Rancho Seco, SMUD will have adequate capacity to service new growth in the City of Sacramento.⁽¹⁰⁾

Pacific Gas and Electric Company

PG&E supplies natural gas to City of Sacramento with flows originating in the Rio Vista Gas Fields and transported through main lines that enter the City in the Meadowview area. Also PG&E maintains an underground North Sacramento Gas Holder in North Sacramento. As both facilities, main line and storage tank, are centrally located to those locales forecast for development no difficulty is foreseen by PG&E officials in supplying natural gas. Residential development as a gas consumer is far less impactful than other types of users. Total consumption, although increasing as development occurs, poses no serious problems from a supply standpoint.⁽¹¹⁾

"PG&E Company supplies natural gas to the City of Sacramento through

flows from a grid system of interconnecting pipe lines from three gas sources including California, Canada and El Paso Natural Gas Company. Residential development as a gas consumer is far less impactive than other types of users who may vary considerably in the amount of gas required. Supply to residential developments is expected to be adequate in the foreseeable future. The California Public Utilities Commission is conducting hearings on the energy situation in California. PG&E has submitted plans outlining measures for gas energy conservation and mandatory curtailment. Gas curtailment presently involves customers on interruptable gas schedules." *

Impact

Additional growth will result in increased consumption of natural gas. Foreseeable impacts may be the difficulty in the distribution of gas supplies. Sufficient lead time should be incorporated into project planning to allow for harmonious installation of utilities.

Telephone Service

The City is currently served by three telephone companies. Pacific Telephone and Telegraph is by far the largest in terms of area coverage and customers served. General Telephone (Courtland Exchange) serves a small area south of Meadowview Road - east of Freeport Boulevard. Citizens-Utilities, (Elk Grove Exchange) provides service to the majority of the Valley Hi area.

Impact

Growth will require additional telephone service, both in terms of distribution network and increased plant capacity. General Telephone, (12) Citizens-Utilities (13) and Pacific Telephone (19) spokesmen have indicated that extension of services can be adequately handled so long as sufficient lead time (12 to 18 months) exists in the project planning stages.

Emergency Services for Hazardous Materials

The concern is for transportation through the City of hazardous materials such as radioactive substances, explosives and toxic materials or possible effects of nuclear disaster associated with the Rancho Seco Nuclear Generation Station. As responsibility for transportation of hazardous materials transcends political jurisdictions, the City of Sacramento is participating in the preparation of plans by the Sacramento County Office of Emergency Operations to eliminate or minimize risks associated with these potential hazards.

*Complete text of statement appears in "Comments", Appendix B.

IV ANALYSIS OF IMPACTS AND THEIR DISPOSITION

A. Adverse Environmental Effects which Cannot be Avoided if the Proposal is Implemented

Adverse environmental effects have been largely described under appropriate topics identifying environmental impacts. This method was chosen because of the inseparable relationship between "environmental impacts" and "adverse environmental impacts".

Direct impacts of the plan elements are minimal, the major consideration is for the secondary and indirect effects.

Most unavoidable impacts that would result if the proposed General Plan is implemented are related to continued urbanization. Those impacts related to the natural-physical environment include:

1. Loss of high fertility soils in portions of the Northgate-Gardenland area and the Pocket area;
2. Hydrologic impacts that include increased urban run-offs and flood peaks, a decrease in amenity value of stream channels, and the disruption of stream biota balance;
3. The destruction of natural plant and animal communities in areas that develop, along with simplification of species complexity and numbers.

Unavoidable impacts upon the socio-physical environment include:

4. Increased service costs to urbanize undeveloped land.
5. Aesthetic impacts including increased traffic congestion and a decrease of open space in urbanizing areas.

B. Mitigation Measures Proposed to Minimize the Project

The various elements of the General Plan are in many ways an amalgam of mitigation measures to avoid the detrimental effects of unplanned growth and development. As such they introduce a number of potentially beneficial impacts of their own. These are discussed throughout this Plan.

1. The General Plan proposes a series of policies intended to control urban sprawl. It establishes a set of positive policies to encourage good urban development in areas which may be ready for urbanization within the Plan's time frame. It establishes positive rural-agricultural policies and goals for areas which should be retained for agricultural purposes until required for urban development. It establishes the intent that all land use implementation

decisions with due regard for environmental and open space considerations.

2. The General Plan proposes the establishment of requirements for environmental impact statements pertaining to all projects which effect the environment. While the General Plan does not specifically establish such requirements, it refers to concurrent studies for this purpose and provides general policy guidelines relative to those studies. In addition, the Plan makes policy commitments relevant to solid and liquid waste disposal, open space and land use relationships concerning environmental quality, aesthetics, public safety and amenity preservation.

Two other policies mitigate the social and economic impacts of more limited growth than has occurred under previous plans.

3. The General Plan includes assumptions concerning the economic development of the City as it relates to physical development aspects. The Plan proposes the strengthening of Sacramento's role as the regional center for manufacturing and distribution of goods and services, processing and distribution of agricultural products and supplies, and governmental and public services. The Plan provides ample space for expansion of all these economic components and encourages diversification in all of them.
4. The General Plan encourages variety and flexibility in residential development. It encourages an enriched vitality in residential areas, through a variety of dwelling types and through their integration with well planned recreational open spaces, well located commercial facilities and the preservation (or provision) of needed environmental amenities. The Plan proposes population density criteria for residential areas within which a wide variety of dwelling types can be achieved, and within which future services can be adequately planned and provided.

C. Alternatives to Project

In preparing the City General Plan, alternative plans were considered for determining the growth policy of this City such as continued growth in present directions, no growth and directed growth for which this plan provides. The proposed General Plan was chosen as the only feasible alternative as the result of input from the public, the Planning Commission and the Planning Staff.

The existing proposed plan is an action plan in that the adoption of the Plan, its goals and policies and especially the adopted list of priorities, will encourage implementation of these policies and priorities.

No Project - Unreasonable at this time due to: (1) State law requirement for a General Plan, (2) the 1965 Plan is out of date, and (3) the 1974 Preliminary General Plan is in draft form.

Reduced or Modified Project - This would satisfy State requirements but leave the majority of the existing 1965 Plan reflecting out-of-date information and would not be responsive to present community attitudes.

D. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

As previously discussed throughout this section, the proposed General Plan anticipates continued growth which will produce long-term impacts. The development and implementation of a General Plan and the stewardship of conservable natural resources will maintain options for future generations.

The General Plan is "justified now rather than reserving the option of future alternatives", due to the mandate of State law and the need for updating the General Plan.

E. Irreversible Environmental Changes Which Would be Involved in the Proposed Action Should it be Implemented

The General Plan itself will not directly cause any irreversible environmental changes although secondary and indirect effects will be farther reaching.

Irreversible impacts from implementation of the proposed General Plan will come primarily as a result of urbanization. Impacts upon the natural-physical environment include:

1. The commitment of agriculturally productive lands in the Northgate-Gardenland and Pocket areas of the City for urbanization.
2. Hydrologic impacts, including increases in peak flows and total run-off, and decreases in water quality.
3. Destruction and simplification of natural plant and animal communities.

Impacts upon the socio-physical environment include:

4. A commitment to urbanize previously agricultural land with attendant costs, which will be irreversible once urban services are installed.

F. Growth Inducing Impact

The General Plan has the potential to affect urban growth. Specifically,

it is the intention of the General Plan to guide the character or urban growth in an effort to provide a better environment.

The General Plan document has limited impact, insofar as inducing growth of the existing urban area.

Other affectors of urban growth, such as housing, economic factors, job availability, and even the relative desirability of the Sacramento area as a place to live, have greater impact as growth inducers.

V PUBLIC POLICIES, LAWS AND REGULATIONS RELATED TO THE PROJECT

The primary law related to the General Plan is found in the regulations of the California Administrative Code, Article 5 of Chapter 3 of the California Government Code. Section 65300 states that "Each planning agency shall prepare and the legislative body of each city and county shall adopt a comprehensive, long-term general plan for the physical development of the county or city....".

VI ORGANIZATIONS AND PERSONS CONSULTED

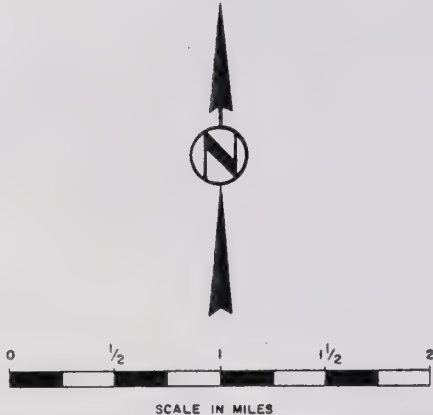
Organizations, persons and documents consulted in the preparation of this Environmental Impact Report can be found in the bibliography.

This EIR was prepared by

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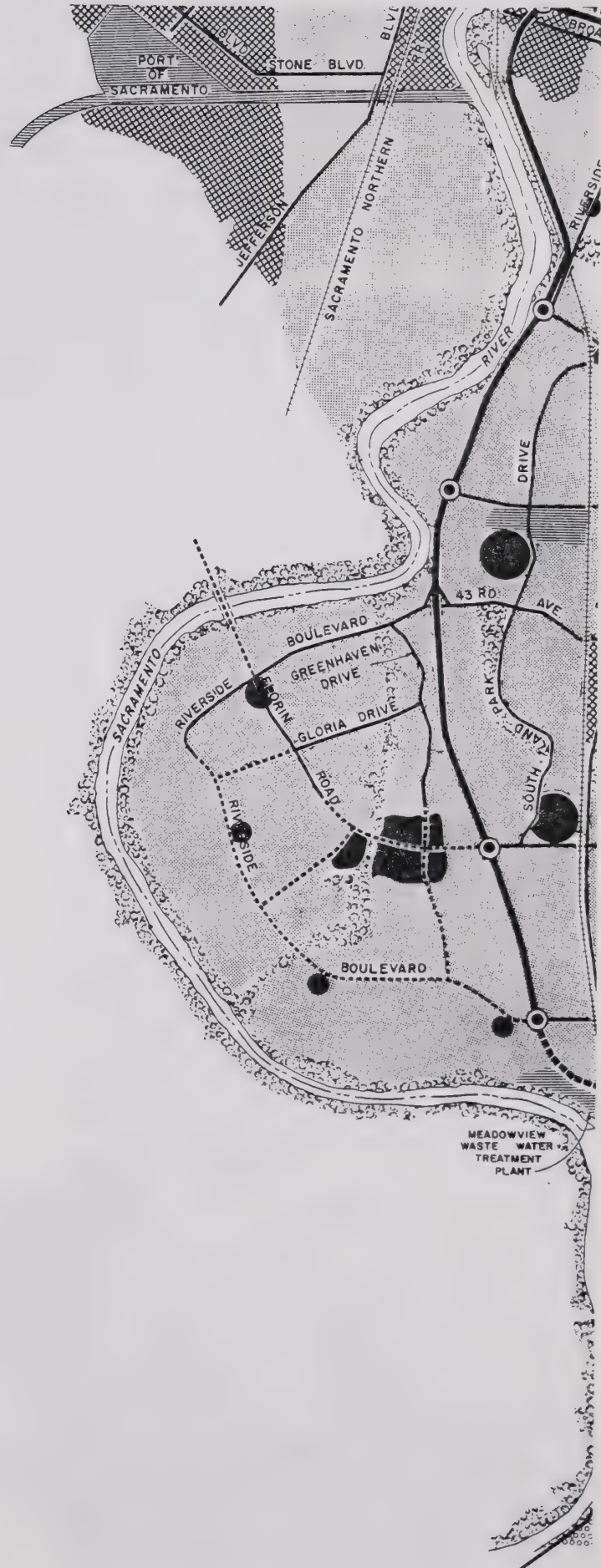
CITY COUNCIL ADOPTED — AUGUST 29, 1974

1974 GENERAL PLAN SACRAMENTO, CALIFORNIA

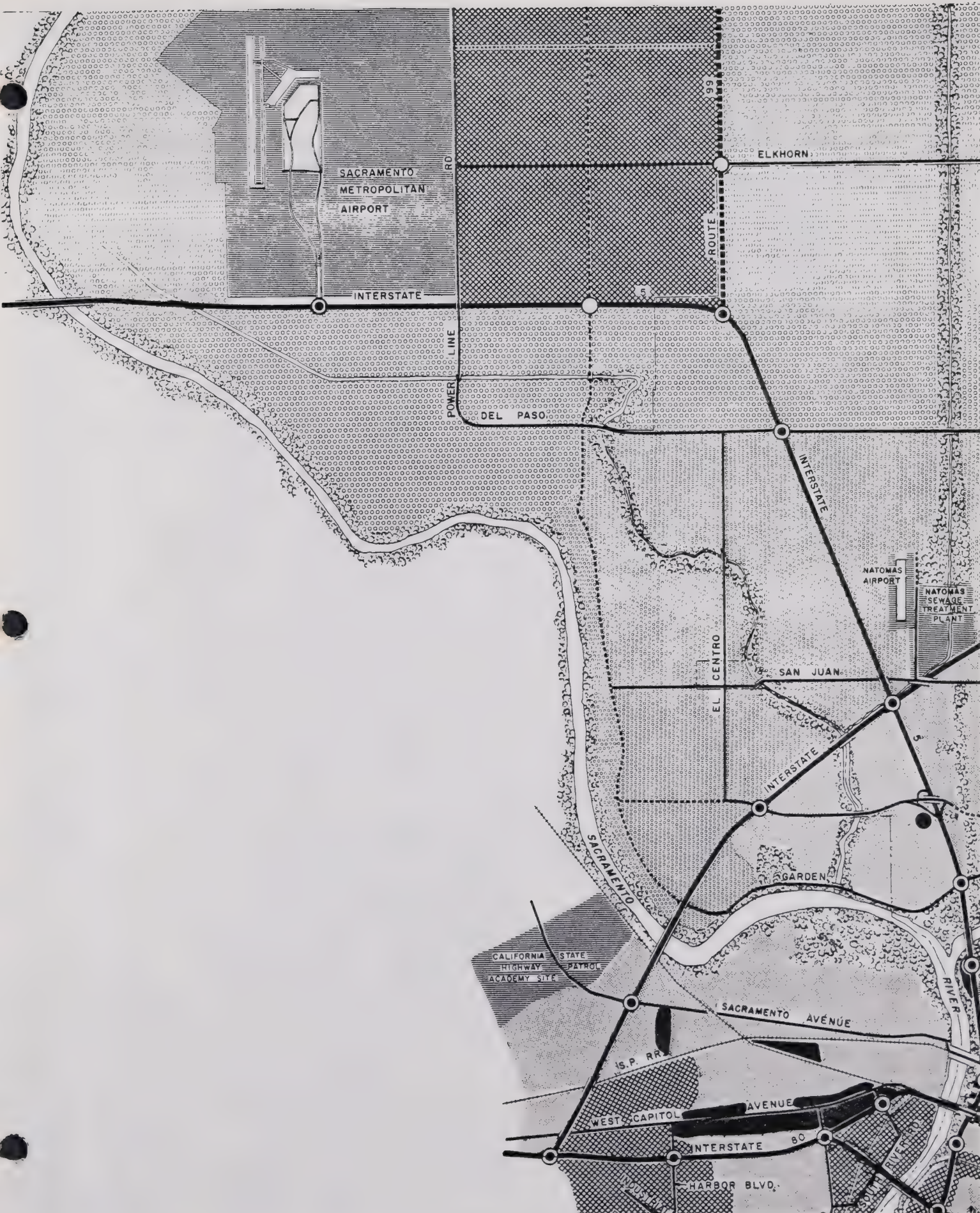
MAP ONE

LAND USE PLAN

	RESIDENTIAL
	COMMERCIAL AND OFFICES
	CENTRAL BUSINESS DISTRICT
	INDUSTRIAL
	MAJOR RECREATION OR OPEN SPACE AREAS
	MAJOR PUBLIC/QUASI-PUBLIC AND TRANSPORTATION FACILITIES
	AGRICULTURE—URBAN RESERVE
	PERMANENT AGRICULTURE



Map One - Southwest Quadrant



1974 General Plan Map One - Northwest Quadrant





1974 General Plan Map One - Southeast Quadrant



CITY COUNCIL ADOPTED — AUGUST 29, 1974

1974 GENERAL PLAN

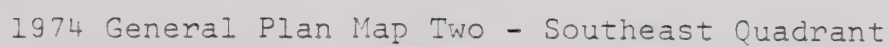
SACRAMENTO, CALIFORNIA

MAP TWO

PUBLIC FACILITIES AND SERVICES PLAN

EXISTING		PROPOSED
<u>SCHOOLS</u>		
	ELEMENTARY	
	JUNIOR HIGH	
	SENIOR HIGH	
<u>FIRE STATIONS</u>		
<u>LIBRARIES</u>		
<u>HOSPITALS</u>		
<u>CIRCULATION</u>		
	FREEWAY	
	MAJOR STREET	
	RAILROAD	
<u>PARKS AND OPEN SPACES</u>		
<u>PUBLIC/QUASI-PUBLIC AND TRANSPORTATION</u>		



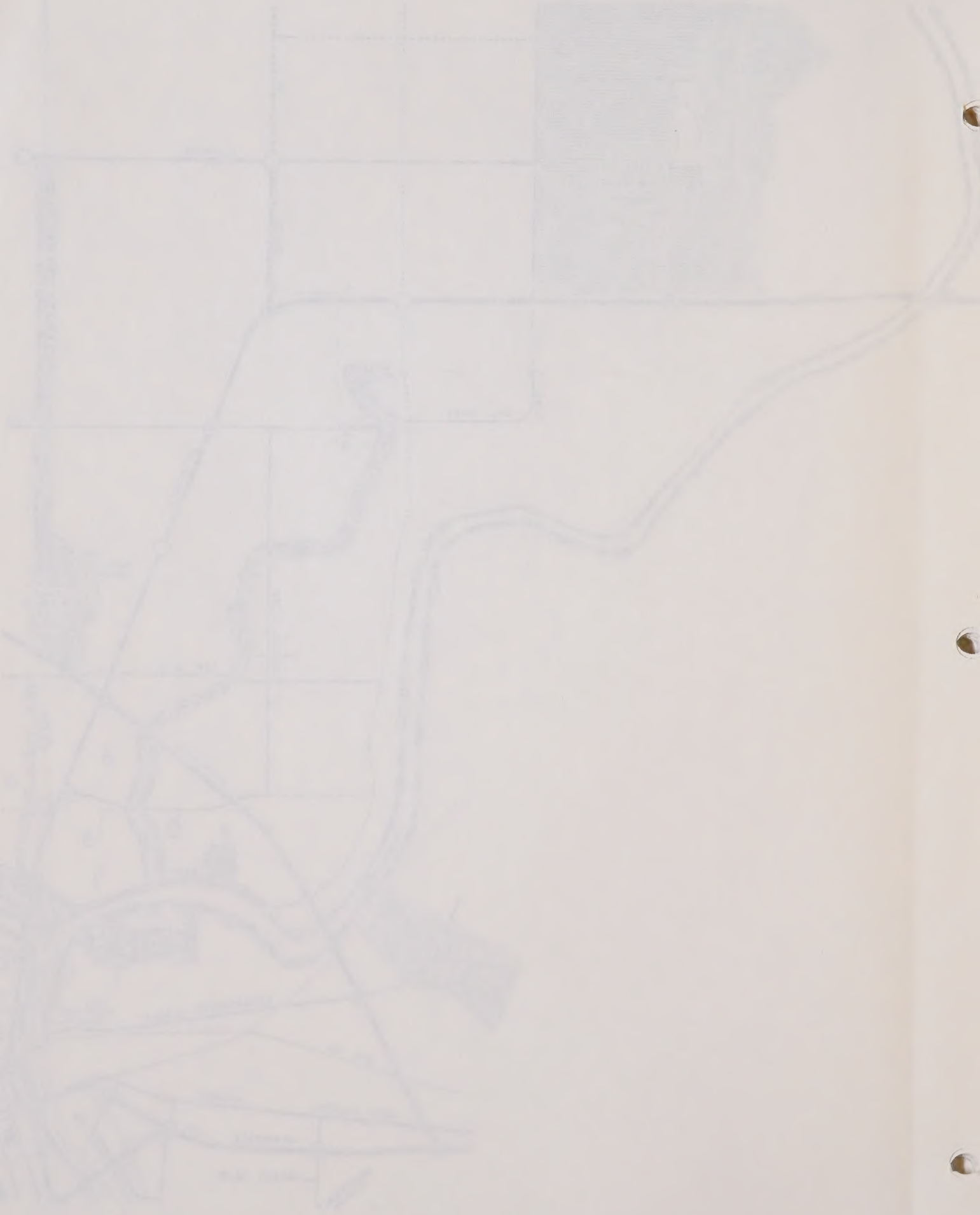




1974 General Plan Map Two - Northeast Quadrant



1974 General Plan Map Two - Northwest Quadrant



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